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# The Public Health Journal

The Official Organ of the Canadian Public Health Association



Vol. IV.

Lumsden Building  
TORONTO, ONTARIO

No. 11.

## SPECIAL ARTICLES :

### WHY ARE MODERN INFECTIOUS DISEASES MILD?

H. W. HILL, M.B., M.D., D.P.H.

### PROPAGATION, CULTIVATION AND DISTRIBUTION OF OYSTERS

T. J. McKEY

### CIVIL ENGINEERING AND ITS RELATION TO PUBLIC HEALTH

J. ANTONISEN, A.M., Can. Soc. C.E.

### DENTAL CARIES IN SCHOOL CHILDREN AND DENTAL INSPECTION

W. D. COWAN, L.D.S., D.D.S.

### SCHOOL GROUNDS AND SUPERVISED PLAY GROUNDS

G. R. JACKSON

### THE NEED FOR MORE COMPLETE ORGANIZATION IN PUBLIC HEALTH WORK

H. G. PICKARD, M.D.

### THE LAND OF SPOTLESS TOWNS

FLORENCE WITHROW, B.A.

### THE DOCTOR'S FIRST DAY AT "THE HOUSE"

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Announcement Pages

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xxx and xxxi

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# The Public Health Journal

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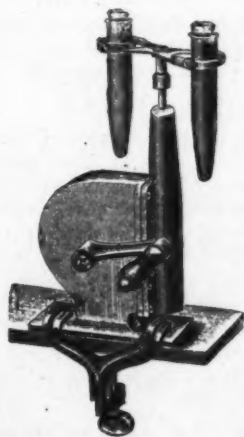
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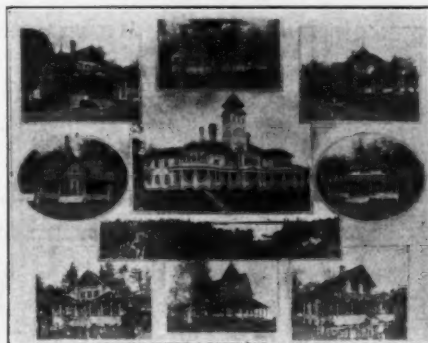
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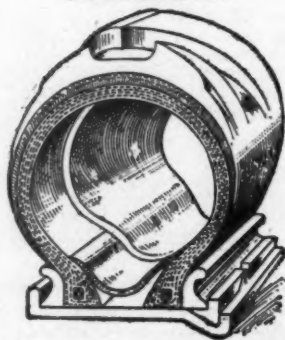


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House flies are now recognized as **MOST SERIOUS CARRIERS OF THE GERMS OF CERTAIN DISEASES** such as typhoid fever, tuberculosis, infantile diarrhoea, etc.

They infect themselves in filth and decaying substances, and by carrying the germs on their legs and bodies they pollute food, especially milk, with the germs of these and other diseases and of decay.

## **NO FLY IS FREE FROM GERMS**

### **THE BEST METHOD IS TO PREVENT THEIR BREEDING.**

House flies breed in decaying or decomposing vegetable and animal matter and excrement. **THEY BREED CHIEFLY IN STABLE REFUSE.** In cities this should be stored in dark fly-proof chambers or receptacles, and it should be **REGULARLY REMOVED WITHIN SIX DAYS** in the summer. Farm-yard manure should be regularly removed within the same time and either spread on the fields or stored at a distance of not less than quarter of a mile, the further the better, from a house or dwelling.

House flies breed in such decaying and fermenting matter as kitchen refuse and garbage. Garbage receptacles should be kept tightly covered.

**ALL SUCH REFUSE SHOULD BE BURNT OR BURIED** within a few days, **BUT AT ONCE IF POSSIBLE. NO REFUSE SHOULD BE LEFT EXPOSED.** If it cannot be disposed of at once it should be sprinkled with **chloride of lime.**

## **FLIES IN HOUSES.**

Windows and doors should be properly screened, especially those of the dining-room and kitchen. Milk and other food should be screened in the summer by covering it with muslin; fruit should be covered also.

Where they are used, especially in public places as hotels, etc., spittoons should be kept clean as there is very great danger of flies carrying the germs of consumption from unclean spittoons.

Flies should not be allowed to have access to the sick room, especially in the case of infectious disease.

The faces of babies should be carefully screened with muslin.

**FLIES MAY BE KILLED** by means of a weak solution of formalin (40 per cent.) exposed in saucers in the rooms. This is made by adding a teaspoonful of formalin to a pint of water. The burning of pyrethrum in a room is also effective.

House flies indicate the presence of filth in the neighborhood or insanitary conditions.

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### Department of Education

#### Official Calendar

##### December:

1. Last day for appointment of School Auditors by Public and Separate School Trustees. (On or before 1st December.) Township Clerk to furnish to the School Inspector information of average assessment, etc., of each School Section. (On or before 1st December.) Legislative grant payable to Trustees of Rural Public and Separate Schools in Districts, second instalment. (On or before 1st December.)
8. Model School Final Examination begins.
9. Returning officers named by resolution of Public School Board. (Before 2nd Wednesday in December.) Last day for Public and Separate School Trustees to fix places for nomination of Trustees. (Before 2nd Wednesday in December.)
12. Model Schools close. [Model School Syllabus.]
13. Local assessment to be paid Separate School Trustees. (Not later than 14th December.)
15. County Council to pay \$500 to High School and Continuation School where Agricultural Department is established. (On or before 15th December.) Municipal Councils to pay Municipal Grants to High School Boards. (On or before 15th December.)
19. Normal Schools (first term) close. [Normal School syllabus.]
22. High, Continuation, Public and Separate Schools close. (End 22nd December.)
25. Christ Day (Thursday). New Schools, alterations of School boundaries and consolidated Schools go into operation or take effect. (Not to take effect before 25th December.)
31. Annual meetings of supporters of Public and Separate Schools. (Last Wednesday in December.) High School Treasurers to receive all moneys collected for permanent improvements. (On or before 31st December.) Protestant Separate School Trustees to transmit to County Inspectors names and attendance during the last preceding six months. (On or before 31st December.) Auditors' Reports of cities, towns and incorporated villages to be published by Trustees. (At end of year.) Financial statement, report of attendance, etc., from Teachers' Institutes. Cir. No. 12. (Not later than 31st December.) Report on Inspectoral visits from Separate, County, and District Inspectors, due. [Instructions, 16, 16a, 16b.] (Not later than Dec. 31st.)

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Celsus could never have spoken it as a physician, had he not been a wise man withal, when he giveth it for one of the great precepts of health and lasting, that a man do vary and interchange contraries, but with an inclination to the more benign extreme; use fasting and full eating, but rather full eating; watching and sleep, but rather sleep; sitting and exercise, but rather exercise and the like; so shall nature be cherished, and yet taught masteries. Physicians are some of them so pleasing and comfortable to the humor of the patient, as they press not the true cure of the disease; and some other are so regular in proceeding according to art for the disease, as they respect not sufficiently the condition of the patient. Take one of a middle temper; or, if it may not be found in one man, combine two of either sort; and forget not to call as well the best acquainted with your body, as the best reputed of for his faculty.—*Francis Bacon.*

THE PRESIDENT  
OF  
1913 The Canadian Public Health Association 1914



*Maurice M. Seymour. M.D.*

# The Public Health Journal

The Official Organ of The Canadian Public Health Association.

VOL. IV

TORONTO, CANADA, NOVEMBER, 1913

No. 11

## Special Articles

### WHY ARE MODERN INFECTIOUS DISEASES MILD

By H. W. HILL, M.B., M.D., D.P.H.

Director, Institute of Public Health, London, Ontario.

Read before the Third Congress of the Canadian Public Health Association, Regina, Sask.

To offer an hypothesis explaining a phenomenon before being sure that the phenomenon exists, is perhaps more a relaxation than a contribution to serious discussion.

Let me say that in offering an hypothesis to account for the relative mildness of modern smallpox, modern scarlet fever, etc., as compared with ancient, I feel that I am handicapped by lack of proof that they are relatively milder; and instead of proof I must offer the widespread but indefinite "general impressions" of a great many of the older physicians; the descriptions of these diseases as given by many of the older writers; and the statistically-derived but only subconsciously credible apparent falling off in the mortality rates.

Against each of these sources of belief stands one or more possible fallacies. The decrease in the severity of disease as it presents itself to the old physician, looking backward, may be no more than an illusion, due to the greater impression made on his mind as a young man just setting out to establish his practice, by

the cases he saw then, as compared with the smaller impression quite similar cases may make on him now; or it may be due to the fact that a physician is apt to judge by end results; and because modern treatment saves patients that would have died, years ago, it seems to him to mean decrease in the severity of the disease, although it means really only an increase in the potency of the treatment.

The descriptions of the older writers must be discounted also, for we all know that it is not very long since only severe forms of disease were recognized—since patients were hardly considered as sick unless they were nearly dead. It is easily within the memory of us all that mild diphtheria, mild scarlet fever, etc., were looked on as innovations, hardly worth serious study, dreams of the faddists. Naturally all the old writers discussed and emphasized the severe typical cases—and naturally the impression arises that only such cases existed.

The comparison of older statistics with those of to-day to determine the relative

deaths against relative populations would be of considerable moment had we any reason for confidence in either the figures for deaths or the figures for populations.

We know that both of these essentials are far from reliable now—we guess on good grounds that they were far worse fifty years ago. As for relative deaths to relative cases, we do not dream that these are anywhere nearly accurate now—and they certainly were not then.

Notwithstanding all this lack of definite proof I assume that the widespread impression of relative mildness to-day does correspond with the facts, in smallpox, diphtheria, and, perhaps, in tuberculosis, at least: although my own tentative belief embraces also most of the other specific non-venereal infections.

At all events, explanations are often offered for this alleged present-day mildness. Perhaps the most often offered is the most fallacious of all. This is the explanation which attributes the mildness to a gradually accumulating inherited immunity, affecting the race as a whole.

The fallacy lies here: admitting for argument's sake, that immunity might be acquired by the race as proposed, how long has the race been acquiring it? This immunity has shown its effects only in the last 100 years—or 50,—or 30, depending on the authority and the disease. But the human race has existed 6,000 years (more likely 100,000). The human race has suffered these diseases 6,000 years (more likely 100,000). What sort of gradually acquired inherited racial immunity would that be which showed no effect for 180 generations (more likely 3,000) and then sprang up fully armed in the last two or three?

Sometimes the explanation (of mild smallpox, at least), is based on gradually acquired inherited immunity from artificial vaccination. That explanation has the merit—a limited merit it is true—that it does take into account the recent development of the mildness, although only for the one disease, smallpox. But this has its fallacies also. First, the mildness of present-day smallpox does not seem to have developed gradually since vaccination first came into use. It seems to be confined to the last twenty or thirty years, or even less. Second, the present mild

smallpox is not confined to the much vaccinated races, but flourishes everywhere. Last, and most important of all, how is it possible to consistently conceive the development in one hundred years of inherited immunization from cowpox, which itself protects the vaccinated only five years, when the virile and lifelong protection afforded by virulent smallpox has operated in the race for thousands of years without any such effect at all?

The second most commonly offered explanation of the present-day mildness of the infectious diseases is "improvement in general sanitation." Here again we have no human statistics which are conclusive. If we may judge from the testimony of careful breeders of prize stock, however, the tendency of hygienic surroundings is to make animals more susceptible to infections rather than less—and it certainly does not become us at this stage to claim that the race now crowding into cities and living in auto and smoke dust is under more sanitary conditions than our forefathers, out in the country. I doubt if the careful inquiries we so talk about, but don't make, into the actual case-rate fatality of the infectious diseases, would show more deaths per cases in "unsanitary" surroundings than in "sanitary" ones. Every one knows that the obstetrician fears infection more in the rich man's home than in the slums.

The third explanation, already partially dealt with, is that of improvement in treatment. But this evidently does not apply, for the vast majority of the mild cases of smallpox, scarlet fever, etc., of to-day are not treated by physicians—in fact, most of them are not seen by physicians at all! How is it possible that improvements in treatment which are not used, could affect the diseases—unless we cynically say that after all this very absence of treatment is itself the improvement?

In brief, it appears that existing explanations are fallacious; and that no long-continuing, gradually-developing old factor in life is adequate.

There must have been some new factor, something tremendously powerful, tremendously widespread, and yet thoroughly well disguised.



I offer for discussion the hypothesis that this factor was Lord Lister's introduction of surgical antiseptics and asepsis, and the following sequence of arguments in support.

Call to mind the fearful condition of hospitals, 50, even 30 and 20 years ago, such that the hospital death rates in major surgery reached 60 to 80 per cent. Call to mind that these deaths were only the high water marks of widespread blood-poisonings, putrid wounds, gangrenes, and "laudable pus." This means that the hospitals, the patients, the practitioners who attended them, formed one great combination for the breeding, increasing of virulence and prompt widespread distribution of strepto and staphylo cocci. The practitioner of that day carried as we all know, strepto and staphylo cocci to his obstetric cases. We all remember the discovery of the cause of puerperal septicemia and the prompt measures that followed, practically abolishing it. But the practitioner carried these germs not only to obstetrical cases, but to all, hence also to smallpox and consumption, to scarlet fever and measles, to diphtheria and whooping cough.

True, it was not recognized then, as it is now, that the non-specific infections with strepto and staphylo cocci do more harm in these diseases than the original specific infections themselves. But now, we recognize this and it is time to take cognizance of it.

We have learned to abolish surgical infection by appropriate bacteriological technique. We are learning to abolish cross-infections in contagious hospitals, also by appropriate bacteriological tech-

nique, borrowed in many respects from the surgeons. What we need now is still further to extend this technique to the care of all septic medical cases, whether they suffer from the specific infections or not; for if we abolish the strepto and staphylo cocci from the ordinary infectious diseases, we shall practically abolish the diseases themselves—that is, we shall leave them so mild as to be almost negligible.

### Summary.

1. Although we should hold as our ultimate aim the abolition of the specific infectious diseases, it is well to remember that the chief harm that they do is due to strepto and staphylo cocci as secondary infections.

2. As a life-saving proposition, the abolition of strepto and staphylo cocci deserves more strenuous attention than the abolition of even the tubercle bacillus—ranking in this with the abolition of syphilis and gonorrhoea.

3. The mildness of modern infectious diseases is due to the lessened virulence, smaller stock, and reduced distribution of the strepto and staphylo cocci formerly bred in our hospitals: and is to be ascribed to Lord Lister, who, however, probably did not foresee this development.

4. Public health men should campaign for medical asepsis as the surgeons did formerly for surgical asepsis; and not only in contagious hospitals handling the specific infections, but also wherever septic cases are cared for. Indeed, we should probably gain immensely if all septic cases were isolated, as smallpox, etc., are now.

---

## THE FOOLISH MIND

### PRIDE.

#### Diagnosis—

When you see a man elated with pride, glorying in his riches or high descent, look out for his speedy punishment; for he is only raised the higher that he may fall with heavier crash.—*Meander.*

#### Remedy—

Bear in mind—we are all descended from a certain disreputable old gardener, who was turned out of his Master's garden for stealing his apples.—*Spurgeon.*

# PROPAGATION, CULTIVATION AND DISTRIBUTION OF OYSTERS

By T. J. McKEY, Toronto

Read before the Third Congress of the Canadian Public Health Association, Regina, Sask.

This is a subject of more than ordinary interest, but space will not permit of its being treated in any but a general way.

## Propagation.

Both the male and the female oyster lay eggs. Authorities credit the individual oyster with laying anywhere from four to fourteen million eggs. Their spawn usually form in June and the oysters let go of their spawn when the temperature of the water reaches about 70 degrees Fahrenheit. This spawn comes to the surface and floats, and with the assistance of the sun is fertilized.

This embryo develops a primitive shell with a hairy appendage and sinks to the bottom from its own weight, and with this appendage clings to anything smooth and hard.

Practically everything on the sea bottom, that has been there any time, is covered with a slime. This embryo oyster is not heavy enough to penetrate this slime, and would, as a result, slide off any substance that has been there for some time, and be buried in the sand. To overcome this condition the grower takes the shells from the oysters he opened the winter previous, and which have been lying on his dock up to this time, loads them on scows or other craft, and they are taken out and shovelled off on the prospective spawning ground. The spawn, being liquid, will come up through these clean shells, but the embryo oyster when returning to the bed bottoms will come in contact with the clean shell, that has been planted for that purpose, and thereby a much larger percentage of the set is caught. This embryo attaches itself to the shell with the hairy appendage referred to. An individual shell may have fifty of these young oysters clinging to it. As they grow they, of course, crowd off.

## Cultivation.

The foregoing describes, in a limited way, the propagation and preparation for catching the young spat or spawn. Oysters are seldom matured on the beds on which they spawn, as it is generally conceded that they will do better if transplanted to other sections. This accounts



*Through the Ice—Long Island Sound*

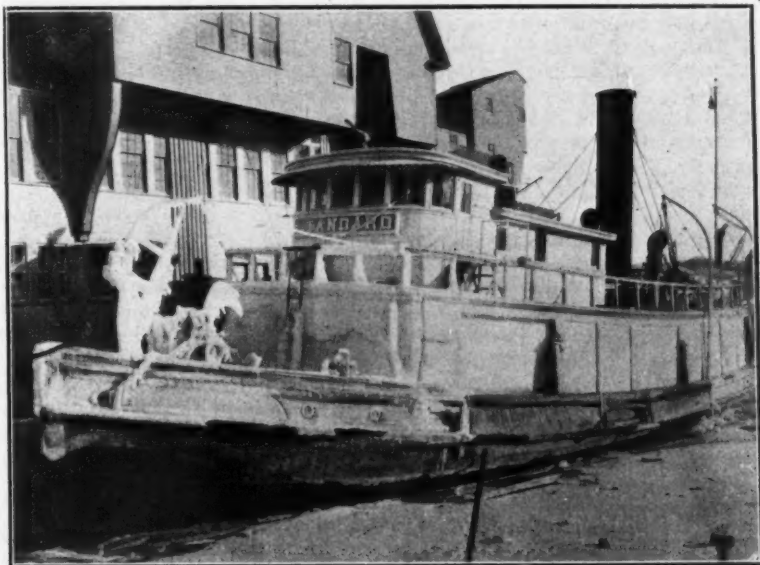
for what is termed "fattening ground." There are districts in Long Island Sound that are largely given over to spawning and very few oysters are marketed from those grounds. You will understand from this how the grower would find it to his advantage to use certain sections for spawning ground, and other districts as fattening ground.

The age at which oysters are shifted to other ground is determined entirely by circumstances. If the set is heavy the grower will probably find it necessary to shift some of his oysters the following spring to avoid crowding. If they have had a light set and fattening ground is at a premium, which it usually is, the oyster may be left there until he is two or three years old. The age of an oyster when marketed ranges from three to seven years. It is generally conceded that it is

more profitable not to open oysters until they are four years old. It is like killing a steer before it is ready.

In the Northern States oysters are now taken from their beds by steam dredges. This is a chain bag dredge that is dropped, one or more, from each side of the oyster boat. As the boat progresses the dredges are dragged on the bottom and are so constructed that they will fill up with oysters on the bed bottoms. They are then hauled

the oysters' food supply consists of "diatoms," and that most of the remainder is composed of other equally minute plants or organisms on the more or less debatable borderland between plants and animals. The oyster obtains these microscopic organisms by drawing feeble currents of water between the open shells, straining them through the exceedingly minute orifices in its gills, and passing the filtrate by ciliary action into



*At the Dock, South Norwalk, Conn.—After a Trip Across Long Island Sound*

aboard by power and the contents emptied on the deck, and again dropped back into the water for another load.

The flavor of an oyster depends entirely on the community in which it is raised. The Bluepoint oyster, we hear so much about, is, as a rule, an oyster transplanted from Long Island Sound to Great South Bay on the south shore of Long Island. It is only a question of months until this oyster has taken on all the elements of the Bluepoint oyster. The same thing applies where this oyster is transplanted to Rockaway or Narragansett Bay.

With reference to their nourishment, numerous investigations have demonstrated that better than 90 per cent. of

its mouth, which lies ensconced between two pairs of fleshy palps close to the hinge of the valves. Though the currents induced are feeble they are constant, and during the course of twenty-four hours the water thus minutely strained is many times the volume of the oyster.

#### **Distribution.**

For the past few years it has been necessary that oysters be shipped in a sanitary compartment package, keeping ice and water separate from the oyster. While this was practised by some shippers prior to there being legislation to that effect, it is now compulsory not only in Canada, but in the United States. This system of shipping has brought home to the dealer

and the consumer the fact that he is assured of not only a palatable but a pure food when consuming oysters.

The nutritive value of shellfish depends to a considerable extent upon its digestibility. While there are people with whom such foods do not always agree, yet oysters belong to the more easily digestible class of foods. In a recently published study of the composition of the oyster and other problems connected with their food value, the statement is made that the nutrients occur largely in forms in which they are readily assimilated, as is shown

by the fact that one-half of the crushed oyster and one-quarter of the whole oyster is soluble in water.

There has been a prejudice instilled in the minds of a great majority of our people that oysters are not safe as a food. This, however, is proved to be not well founded and my assertion is backed by such authority as Dr. C. L. Alsberg, chief of the Bureau of Chemistry, Department of Agriculture, Washington, D.C. Dr. Earl Phelps, Professor Sedgwick, Dr. Julius Nelson, Dr. F. P. Gorham, and several others of recognized ability.

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#### WHEN I'M SICK

I don't like the days I'm sick,  
I don't like to lie in bed,  
It's so horrid with a cold,  
And my eyes all swelled and red.

I can't raise my head one bit,  
Else I feel so awful queer,  
Seems as if a little girl,  
Simply *must* have mother near.

She's the best one that I know,  
Can't beat her for soothing pain.  
She just knows what's right to do,  
No one equals her, that's plain.

But there's one thing I've found out  
When I'm sick and this is sure,  
That the ones who love me most,  
Seem to love me more and more.

Father, Auntie, all the rest,  
Are so full of sympathy,  
Why—they just spend all their time,  
Finding out what's good for me.

And although it's awful hard  
To be sick; I guess I know  
Better than I ever did,  
Just the ones that love me so.



# CIVIL ENGINEERING AND ITS RELATION TO PUBLIC HEALTH

By J. ANTONISEN, A.M., Can. Soc. C.E.

Superintendent Municipal Railway, Brandon, Man.

Read before the Third Congress of the Canadian Public Health Association,  
Regina, Sask.

Allow me first of all to thank the members of the Committee arranging the programme of this meeting for the honor which they have shown me by requesting me to be one of the representatives of the engineering profession at this gathering.

There was a time, not so long ago, when the voice of an engineer would not be heard at such a gathering as this. What in the world had an engineer to do with the public health anyhow? But those times are rapidly passing into the ocean of oblivion, and it is becoming an accepted fact, that there can be no proper safeguarding of the public health without the civil engineer.

I have not come here to minimize the noble work of our colleagues, the doctors, as medical health officers, nor the honest endeavors of other public-spirited men on behalf of the public health; they all deserve great credit for their efforts, and we engineers should be the first ones to acknowledge that and point it out to our fellow-citizens, but I can not miss this opportunity of impressing on you at the risk of being denounced as boastful, that in the hands or the brains of the civil engineer, lies the bodily welfare of the citizens of our cities, towns, villages, and rural communities.

We engineers must rise to the occasion and show the world that we are big enough for our task. We need the hearty co-operation of our noble friends, the doctors, and if we work together, there is no reason why we should not practically exterminate all sickness and create a race of absolutely healthy beings; what is necessary in order to establish a healthy community?

Pure, plentiful water supply.

A proper sewerage system,

An effective drainage system,

A well organized system of collecting and destroying the garbage,

A sanitary lighting, heating, and ventilating system for our public buildings and private houses, development of power to operate our public utilities and factories; cheap and safe means of transportation, both by urban and interurban and the larger railroad lines; proper construction of highways, roads, pavements and sidewalks, efficient maintenance and cleaning of our streets, proper city planning, liberal provision for park areas in our congested cities and for playgrounds, public baths, comfort stations, and a hundred other items, which all come within the scope of the engineer's duties.

The contents of my address have two distinct purposes:

First, I wish to point out to the engineers, especially the younger men, who are just entering the field and have, therefore, not lost the enthusiasm which is apt to vanish after years of experience in public service, what a wonderfully interesting and noble profession they are following, how great chances the civil engineer has of becoming a public benefactor, if he does his work well, conscientiously and thoroughly.

Secondly, my aim is to give the public at large a better understanding of the great responsibility which the municipal engineer has to assume, and, perhaps, thereby get the public to show more appreciation of the engineer's work, not alone in their attitude towards him socially, but also financially.

When the fearless pioneer goes forth into unknown regions to find a new home for himself, his first problem is: Where can water be obtained for all kinds of domestic purposes. He locates his house near a lake, a river or a creek, and when other settlers follow, they ask this same question, "Where can we get plenty of



water?" It is, therefore, not purely accidental that the majority of villages, towns and cities are located near rivers and lakes.

The pioneer's lonely cabin becomes surrounded by settlers' houses; in course of time a village or small town grows up and the community is gradually confronted with all these problems, which I enumerated before. At first the so-called practical men try to solve these questions, but sooner or later in the development of each town, the time comes, when it becomes apparent to everybody: We must employ an engineer to look after things for us!

By advertisement or by application to some large city a number of candidates for the position are obtained, and, after due consideration, the community selects their country or town engineer, who is then expected for a salary of \$75.00 to \$125.00 per month, to be an expert in all branches of civil engineering; and the average town engineer puts up a bold front, God bless him, commences to liek things into shape, and although he makes many daring leaps into darkness, he generally lands on his feet somehow or other. By constant hard work and diligent study, seeking advice and information in books and from more experienced colleagues, he gradually develops into that modern wizard: the City Engineer. During his development period he has laid out systems for waterworks, sewerage, built sidewalks, streets, bridges, subways, sewage disposal plants, reservoirs, water towers, dams, incinerators, grandstands, racetracks, and a thousand other things.

As long as the town is small, it is contented to pump the water from a river or lake, and use it without any kind of treatment; it is considered all right to discharge raw sewage into the creek or river or lake, as long as the waterworks intake pipe is up stream and the sewer outlet down stream, or in case of a lake supply a couple of miles apart; but when the death rate rises to uncomfortable figures, then the first question asked is: Have we got a pure water supply? The overworked busy city engineer has worried over this question in idle moments between midnight and sunrise generally, and has, perhaps, formed an opinion of what steps should be taken to safeguard

against contamination an existing pure supply or procure a better supply than one already contaminated, but my advice to the City Engineer is: Get your Council's permission to employ a consulting engineer of known repute, lay all your information together with your own opinions before him and then let him decide what should be done. It is well spent money to employ the consulting engineer, and when he has worked out the project and it proves a success, give him the full credit for it, although you have furnished him with some useful information; because, if his scheme does not prove an unconditional success, he gets more than his full share of the blame.

It is not my intention to discuss the many various systems of water supply and the different methods of purifying water by filtration and chemical treatments, these subjects are all to be found in the many excellent text-books and engineering papers, which every engineer either possesses in his own library, or has easy access to; I am only reviewing the engineer's problems in a general, superficial way, being myself no expert in any branch, but more of a Jack of all trades, as a municipal engineer has to be.

Once a pure water supply has been secured, the engineer must turn his attention to the sewerage system, as this problem is of equal importance to the public health, not alone in his own town or city, but to all the inhabitants of the drainage area farther down the stream or bordering upon the lake, into which the sewage is being discharged. It was considered sufficient once upon a time to discharge the sewage raw into a flowing stream or a fairly large lake, and then trust to Providence for the rest, but Providence fails to respond to our trust, and we engineers are obliged to erect sewage disposal plants, a better name for which would, by the way, be sewage treatment plants.

The treatment of sewage in such a manner as to render it harmless is probably the greatest problem of modern engineering, and I wish to repeat my advice to municipal engineers: Do not tamper with this problem, but employ as prominent an authority as you can possibly get, because a poorly or wrongly designed plant

is worse than no plant at all. The Province of Saskatchewan, at whose capital Regina, we are now assembled to discuss matters affecting the public health, is to be congratulated on the way in which this important problem is being dealt with. Some of the other speakers at the convention have undoubtedly informed you that the Provincial Government has very strict rules regarding this subject, and employ their own experts whose advice can always be obtained in designing a system, the plans of which must be approved of by the Government.

In connection with this matter, I wish to mention one feature which could possibly be made a subject of a recommendation to the Government, and that is the operation of these plants, after they are installed.

No matter how scientifically a plant is designed, and no matter how properly it has been constructed, if a properly trained and enthusiastic man is not placed in charge of the operation to take proper observations of the results and to see that proper results are obtained, the plant will be a dismal failure.

The conviction forced itself upon me, while I was city engineer in Moose Jaw, that the Government ought to place a scientifically trained person in charge at each plant and contribute a portion of the cost of his salary as well as the cost of an experimental station, so that complete and reliable records could be obtained regarding the operation of the different plants.

Let us assume now, that we have secured an ample supply of pure water, and that we have in operation a plant, where the sewage is being treated so successfully, that it ceases to be a menace to the public health. Then the question is: Where is another danger lurking? And the answer is: Our system of collecting and destroying garbage. I am not exaggerating, when I claim, that inside the limits of every city in Canada there are always hundreds of tons of garbage lying in a more or less advanced state of decay. A clean backyard is an exception, not alone behind the poor man's house, but also in places whose owners can well afford to clean up regularly.

These garbage heaps are breeding places for flies, and their contents are considered choice morsels by our most beloved pets, the dogs, who constantly come in contact with our children and ourselves. The air is poisoned by the odors emanating from these heaps, but in spite of all this, most cities are very careless and indifferent towards the garbage problem.

Here is a broad field for the engineer to organize a proper system of collecting garbage regularly and then also destroying it properly. When a town has grown to a size of 15,000 inhabitants, it can afford and should erect a garbage destructor, which, when properly constructed and carefully managed, can be operated at a reasonable cost. A Heenan & Froude incinerator which was erected by Laurie & Lamb during my stay in Moose Jaw, cost about \$45,000, and had a capacity of 50 tons per 24 hours. It was operated without the use of any coal and developed enough steam for 50-75 horse powers.

The most essential problem in connection with garbage is, however, to educate the public to co-operate with the authorities by reducing the garbage to a minimum instead of having an abundance of barrels and boxes in the backyard filled to overflowing with filth of every description.

There is no reason, why the average household could not dispose of most of the garbage in the ordinary stove and furnace; the ashes can and should be kept separate and used for filling purposes; tin-cans, when emptied, should be rinsed with water and then put on the bonfire, where it is permitted to have bonfires.

My attention has lately been called to a water-heating garbage burner, which is manufactured in Kewanee, Ill., and can be installed in ordinary private houses for from \$150 to \$250. It is claimed for this apparatus, that it will destroy all house garbage and develop sufficient heat to provide hot water for domestic purposes. The municipal engineer should investigate such matters and advocate their introduction in hotels, boarding houses, large private and public institutions, hospitals and asylums.

In smaller cities, which have not reached the stage where they can afford

incinerators, the nuisance ground flourishes, and is generally very badly managed or not managed at all, but simply left as a perfect gehennah. There is no necessity for such a state of affairs, as a nuisance ground, under proper management, can be made a smaller pestilence than at present by the display and use of some common sense.

Fires should be maintained, a system of ditches should be dug, into which garbage, that cannot be destroyed in the fires, can be dumped and afterwards covered with the excavated earth. On the average nuisance ground we can generally find enough combustible material, in shape of paper, rags and boxes to maintain fires, which will burn up most of the garbage or at least disinfect it, and in charge of the place are some old fellows who have been given that job because they are old ratepayers.

But let us turn away from all this filth, and consider the more pleasant tasks of the engineer, through which he promotes the comfort of his fellow-citizens and beautifies the city. I refer to such matters as building sidewalks, curbs, pavements, boulevards, parks, and tree-planting. It is of comparatively small importance whether the sidewalks are laid at the property line or at the curb, as far as the public health is concerned, the main thing is to get a network of sidewalks built, so that the citizens can come back and forth from their homes without walking in ankle deep mud, which is then dragged into the houses; dirt in every shape and form is a menace to health.

The boulevards should be made as wide as possible and trees planted thereon, as grass and trees have a beneficial effect upon the health of the inhabitants. A paved street is easily cleaned, as it can be swept with brooms and flushed with water, so that the dust, manure and other dirt can be removed into storm sewers and by street cleaning wagons.

No city can have too many parks and open spaces, as long as these can be provided for while the land is cheap. The town engineer has to examine all plans of sub-divisions, and can often induce the owner of sub-divisions to set aside a parcel of land for public parks and also get them to make some of the streets wider than

the usual 66 feet. Provisions like these may seem unnecessary at the time, when the sub-division plans are submitted, but they prove themselves of great value to the public health, when these districts become settled.

The roadways in residential sections of cities should be made as narrow as possible, just sufficient for the light traffic as they produce dust and dirt, which is blown into the houses, whereas boulevards with grass are always clean, healthy and beautiful, when well kept.

As long as the town is small the transportation problem does, of course, not signify, as the distances between residential and business sections are short, but when the land becomes very valuable, due to the progress of the city, and, therefore, the working classes must move away from the vicinity of their working places, then arises the necessity for rapid and cheap transit, and we build our electric street railways, which enable the man of moderate means to make his home in the outskirts or suburbs of a city, where land can still be bought or houses rented for a reasonable price.

The man who works in an office, shop or factory the whole day, needs change of air, when he is through with his day of labor, and the street cars, elevated and underground railways, as well as the steam operated suburban trains, carry the working population back and forth between their places of work and their healthy homes at a small cost. We extend the water and sewer mains, electric light and telephone lines to the farthest limits of a city, so that there should be no excuse for overcrowding in tenement houses.

And when a city has reached the stage where this housing problem becomes an acute question, then we commence to talk of city planning and we discover all the mistakes which have been made, while the city was growing. And why were these mistakes made? Principally because the municipality had no power to control the city planning, and then also often because even though the authorities of a city had power to control the city planning, the engineer's advice was not obtained, but private interests dictated the policy of the controlling bodies.

It struck me forcibly last year, when the city of Moose Jaw sent me as a delegate to the Winnipeg Convention for City Planning, that I was about the only city engineer present from the whole Dominion of Canada. This branch of engineering, the city planning, should be taken up more thoroughly by municipal engineers, because, generally, the town engineer has to pass all sub-division plans, and, if he does not take a look into the future before passing a plan, it is pretty certain that nobody else will, and thus occur the many blunders, which it afterwards costs enormous sums to rectify.

I am inclined to think that the proper way is to let the city engineer lay out a city plan and then make property owners conform to this plan. That may appear autocratic to the free citizen of the new world, whose idea of liberty is often that he should have the right to disregard the rights of the community for his own personal advantage, but true liberty exists when law and order are most respected.

In the foregoing remarks I have principally dealt with the municipal engineer, but let us not forget the railroad engineers, who have made it possible to travel from coast to coast or from the frozen north to the Gulf of Mexico in a few days and at such a reasonable cost, that almost every person who works steadily and saves a small portion of his earnings, can afford to take a recreation trip once in a while to see other lands and meet other

people; the grain from Canada's wheat fields can be exported and exchanged for the products of foreign lands, imported over ocean, lakes and rail, the fruit crops of California, Florida and other fruit-growing places are distributed to the remotest corners of the American continent, all due to those two strips of steel, which are laid whenever the engineer sets his centre stakes and grade stakes.

And then we have the hydraulic engineers who harness the water falls and rivers to develop power, that wonderful force, electricity, which operates our factories, light plants, electric railways, etc., When we contemplate all the wonders, which civil engineers have accomplished, we may, indeed, be pardoned for feeling proud of our profession, the members of which have contributed so largely to make this world a more pleasant and healthy place to live in.

There are a good many other items, which could be mentioned, but I have already tried your patience enough by endeavoring to demonstrate, that but for the timely interference of the engineers, the whole world would have come to a standstill long ago.

I hope, however, that my remarks will have some little effect, so that when you go back to your own cities and towns and you see the city engineer walking along the street, you will think to yourselves and say to others: "There goes the man that keep us all alive and kicking."

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### THE POISONED MIND

#### ENVY.

##### Diagnosis—

Envy itself drinks in the best part of its own poison. That of serpents is deadly to others, but harmless to themselves. This has no resemblance to it; it is deadliest to its possessors.—*Seneca*.

##### Remedy—

All that Adam had, all that Caesar could, you have and can do. Adam called his house Heaven and Earth; Caesar called his house Rome; you perhaps call yours a cobbler's trade; a hundred acres of ploughed land; or a scholar's garret. Yet line for line, and point for point, your dominion is as great as theirs, though without fine names.—*Emerson*.



# DENTAL CARIES IN SCHOOL CHILDREN AND DENTAL INSPECTION

By W. D. COWAN, L.D.S., D.D.S., Regina

Read before the Third Congress of the Canadian Public Health Association,  
Regina, Sask.

Believing that through the medium of this paper we should try and reach the public as much as possible in language which they will understand, I have avoided as far as possible all technical terms and illustrations.

There are four things in connection with the dental inspection of school children and the relation of dental caries to general health which I would like to impress upon you. These I will summarize first and then give reasons:

1st. I submit that up to the age of two the child should be fed on an animal diet (milk chiefly).

2nd. That from the age of two or the eruption of the temporary teeth the mother should regularly clean the teeth of her child until the child can do it for itself.

3rd. That every child between the ages of six and eleven should regularly visit the dentist.

4th. That the only way to accomplish the third is for the various School Boards to compel it.

Regarding the first of these four, I will say very little. The very young child does not come under the care of the dentist, and the medical profession, therefore, does not require any advice from us. Sufficient for me to say that all of the temporary teeth and the crowns of all of the permanent teeth have been formed before the child is two years of age and are lying in an unerupted state awaiting the time for eruption, therefore if we are going to build up a man or woman with strong healthy bones, the food for this should be given at the time when that bone is forming. The erupted tooth depends to a large extent for its power to resist decay, upon its density. Its density depends largely upon the foods supplied while the tooth is being formed, hence the necessity of animal or bone-

forming food as distinguished from starchy substances at this period.

It is amazing the indifference shown to dental defects; this particularly on the part of the mother towards her children between the ages of two and six. Dentally speaking, easily ninety per cent. of the children have no mother at all at that age. These children don't need dentists half as much as they do mothers. The great bulk of parents think (and say), 'Oh, well, these are just Mary's first teeth; she will lose them in a little while, so what is the use spending money upon them.' The dental profession don't want her money. All we want her to do is to spend five minutes of her own time twice a day cleaning the teeth of that "little darling" that each of them would give her life to save. She will wash five dresses, if necessary, a day just to keep the little "sweetheart" clean, but as for the teeth, why she "never thought of it." What we want her to do is to get a soft, small brush, and between the ages of two and six, when the child doesn't know enough to do it for herself, clean the teeth for her. Thousands of children have temporary teeth decayed until they are a positive menace to health. Why? The cause of decay is just the same in temporary teeth as in the adult, viz., fermentation resulting from uncleanness. The result of uncleanness and fermentation is just the same in the temporary teeth as it is in the permanent teeth, excepting that in the child it is far more rapid and disastrous. Why is it more rapid? Because the temporary tooth is almost all pulp (nerve); a thin, bony wall covering a big mass of soft pulp; hence a slight decay is all that is necessary to produce death of the pulp. What then? Well, there will be at least one, and I have often seen a dozen fistulas discharging pus into the mouth. The child



doesn't know it for now there is no pain. The mother doesn't know it for she doesn't understand the case. It all happens unconsciously, but what does happen is this. Every movement of the masticatory muscles forces some pus into the mouth. Every bite the child makes upon that dead decayed tooth sends some more out to be swallowed. Just as we Canadians sprinkle sugar upon our porridge, so do these innocent youngsters mix in pus. If I handed you a quarter teaspoonful of pus and told you to swallow it you would get sick at the thought. Dozens of children right here in Regina are doing it every day. Poor kids. They know not what they do. But they soon will. As to the effect upon the stomach of that child, I leave that with the medical profession. The pus gets to the stomach and we dentists know it. It comes from neglected temporary teeth, and we know it. It causes serious derangement of the stomach, and we know it. In thousands of cases we have seen marked improvement in health as soon as the cause was removed. But it is not the stomach alone. An infected area exists through which every particle of air which reaches the lungs must pass. The germ theory is no longer a theory. It is a proved condition. Apply your knowledge of this condition; carry it into the lungs of that infected child and what have you got? Disease, of course. Not only that, but the blood as it comes up to the lungs to receive oxygen gets what? Just exactly what you would get out of every ill-kept back yard. The only difference is that you are dead sure you are getting it in this case. Most of us clean up our back yards once in a while, but by neglect or ignorance we maintain a back yard in the mouths of our children to foster the breeding of trouble-creating germs, and then we scold these same youngsters because they won't be happy.

The stomach, the lungs, the blood, a pretty good trio to take better care of than we often do, and a bad trio to infect.

Then again these temporary teeth should not be extracted if it is at all possible to avoid it, because to do so is helping along a somewhat regrettable process of evolution. It is conceded that the dental arch is gradually becoming narrower, and our appearance as a human thereby improved. It is said that this process of evolution was

started when mirrors were invented for our lady friends. It is also said that the more civilized, the thinner the face and the narrower the arch. Be that as it may, the fact remains that the teeth have not lessened in size in proportion to the narrowing of the arch. The result is an overcrowded arch with increased proneness to decay. Now, by extracting the temporary teeth too soon, this process of contraction is individually hastened. Result, mal-occlusion, non-occlusion, retrusion, protrusion and unsightly irregularities and decay. In many cases it takes years to bring the effect, but it comes just as surely as the years do. Nature has provided a way for getting rid of these temporary teeth, and that is the best way. Through our indifference we are turning nature right upside down. Nature provides for the absorption of temporary teeth from the end of the root down to the crown. We are trying to rot them out from the crown to the root, and it is a pretty rotten game we are playing. We are a pretty big factor all right in helping to make this world revolve, but we can't beat nature. We will succeed better by buckling in and helping her along in her own way. What would I do, for there is no use denouncing without supplying a remedy? Well, we dentists seldom see these children under six years of age. The harm by that time is largely done. The School Boards can't very well reach these for they can hardly be called of school age. The only people we can reach are the parents, and we can only reach them by those who come in contact with them. Here, at least, I think the medical and dental professions can agree to unite. I wish that every medical practitioner would add another page to his prescription pad and give it to the mother at the final attendance at child birth or at some time during family attendance. Impress upon the mother the necessity of buying that soft small brush I have already spoken about and spending that five minutes twice a day cleaning the little kiddie's mouth and when she observes decay anywhere take it to her dentist. The little kiddie is worth it. Cleanliness will work wonders. In asking the medical men to do this I don't want to shirk any duty nor do we dentists want to shoulder any responsibility upon the medical profession. The fact is that the medico is in the

home and we are not. They can reach them at the right time and we can't.

I said that every child between the ages of six and eleven should be taken regularly to the dentist. Why? Because at the age of six the permanent teeth commence to erupt and the first of the permanent teeth erupted are the most important teeth in the mouth, and, at the same time, are the ones prone to decay, and the most misleading in their character. Almost every mother makes a blunder over the six-year molars of her children. At about eight years of age she brings the child to the dentist to have some aching "baby teeth," as she terms them, extracted. We dentists know by long experience before we see the teeth that she is clean wrong. It is the most common thing we have to deal with. She is told that they are not "baby teeth," but permanent teeth. "Oh! no," she replies, "Jack never had any teeth there." That is quite true and yet they are permanent teeth she wants out. To take them out is disaster of the worst kind. Once they are gone, then in the subsequent eruptions the entire dental arch is disarranged. None of the teeth thereafter will occlude as they ought to. Shortly the four twelve-year molars erupt and every one of them is out of place and tilted so that the grinding is done on the distal wall instead of on the grinding surface. The interdental space takes on an abnormal shape and the lodgment of food is made easier. Fermentation is increased, decay furthered. Meanwhile, absorption of the alveolus is proceeding where the six-year molar was removed. This denudes the root of the second bicuspid. Shortly it becomes sensitive and loose. The final result: the three most important teeth in each jaw on each side have been lost, the beginning being that neglected six-year molar that the mother thought was a baby tooth and neglected. Now do you see why we want those youngsters to be taken to a dentist at the right time? It may take from five to ten years for it all to happen, but it will happen just as surely as the first tooth was lost. And when it does happen it will take just about one week or less to start a good dose of indigestion. There is more education for some people in half an hour of indigestion, than there is in a week of

such articles as this, but we don't want our youngsters to be educated in that way.

There are a hundred more reasons just as apparent as the one cited, why the child should be taken to the dental office between the ages of six to eleven, but time will not permit. The rapidity with which decay progresses in the child's tooth alone would prove the necessity. But how are we going to bring the child to the dental office? They won't come of their own accord. The parents won't sent them. It seems to me that the only thing to do is to get the School Boards to provide a proper dental inspection and compel a proper dental treatment in the interests of all concerned. If a child is contagion to himself, he is most probably a contagion to others. Have the others not a right to protect themselves, and is it not the duty of the State to protect a child against the ignorance of its parents? When I say ignorance I mean a state made necessary by the fact that we cannot all be experts on all subjects. Ah! you say; some men may object to their child being forced to receive dental attention. My answer is that we find ignorance the world over. We always have to fight it. There is no use monkeying with ignorance. To leave a man in ignorance may be to leave him in a state of bliss, but ignorance and bliss and odontalgia and pulpitis and dyspepsia and indigestion are not quite one and the same thing, so that you are doing him a kindness by knocking the ignorance and the bliss and the dyspepsia out of him, even if you have to do it by force. As I have seen it, a health officer or anybody having to do with the enforcement of laws made to promote public health, has either to be a czar or a failure. He can take his choice. Personally, I would sooner wear a czar's crown and be shot on duty than be kicked out of the back door as a failure. Criticized; certainly. Every dad whose youngster has been whipped at school wants to go and lick the teacher. There are two thousand people in Regina who can run a dental office better than I can. Every man who has been compelled to close a condemned well has been "drinking that water and micro-organisms for forty years, and it never did him no harm." We all know these things. Science just smiles at them and bides her time. Criticism be hanged.

It is the honest God's truth and the stubborn facts as revealed by present-day science that we want. These must govern and the ignorance, and stubbornness, and criticisms must not be allowed to stand in the way.

Our Regina School Board has made a commendable advance in this matter. We have an inspection by nurses competent to determine whether or not dental services are necessary. It has already had the effect of securing to many children the benefit of skilled attention. The system gives every indication of being a success. It may be held that we favor it because it increases our business. It may, but when we agree to do in return for it such charitable work as the nurses decide, then I think we can hold that the accounts balance. The balance being made, then I am at liberty to say that, after all, the greatest profit to be considered is the increased health of the child.

In conclusion, just a few quotations to show that eminent men agree on the importance of the subject herein discussed:

Sir Frederick Treves: "Everybody seems to be on a diet. If people were a little more careful about their teeth, they would not need to be so careful about their diet."

Professor Osler: "If I were asked to say whether more physical deterioration was produced by alcohol or by defective teeth I would unhesitatingly say defective teeth."

Just a few statistics:

In Brooklyn an examination of the school children showed the following dental condition. The teeth of eighteen per cent. of the children were in good condition, thirty-one per cent. were in fair condition, and fifty-one per cent. were in bad condition. In Lincoln, five per cent. were good, thirty-six per cent. fair, and fifty-eight per cent. bad. This is about the proportion you will find all over America. In many cases adenoids and enlarged tonsils are found as a direct result of bad conditions of the teeth. Wherever the inspection of school children for dental defects has been inaugurated a very marked benefit has resulted. It has been proved by careful watching and the collection of data bearing upon the subject that the children who were treated for the defects found soon became much brighter and better students and scholars. There is no question about it, a child physically unfit, even though there is no acute pain, cannot get the mental grasp that he or she would, were the conditions normal instead of sub-normal.

### THE VENOMOUS MIND

#### SLANDER.

##### Diagnosis—

Through the poisoned breath of another, a man may lose reputation, credit, business, wife, houses and friends, yea, life itself. For he does not live who has lost all that made life worth living.—*M. Lubert.*

##### Remedy—

Do not assail thy lips with vicious speech, for such, though sent forth for the hurt of another, will return to thee, and enmesh thee in its toils. If thy tongue cause thee to offend, be thou careful to set a watch upon the door of thy lips, even to the mortification of thy body; for slander turns hangman not to him of whom it is spoken, but to him who speaks.—*From the Hebrew.*

# SCHOOL GROUNDS AND SUPERVISED PLAYGROUNDS

By G. R. JACKSON

Supervisor of Playgrounds, Edmonton, Alta.

Read before the Third Congress of the Canadian Public Health Association, Regina, Sask.

It is an extremely difficult matter to attempt to cover at all adequately the subject of playgrounds in a short paper. Fortunately, public sentiment has reached the point in most places, where the necessity of providing children with play space is generally conceded, but the question of how to adequately make such provision and on whom should lay the responsibility of doing so is one on which there is still a great deal of difference of opinion. It is, however, generally admitted that the duty of any community is to provide facilities for the production of good citizens, and if this be so, it is easy to see that some effort should be made by a city or town to ensure that its citizens are developed and capable in the fullest sense.

The world is now awakening to the fact that physical health is a necessity if men and women are to take their proper place in the world's activities, and as in building any edifice it is essential to start with the foundation, so in building up a citizenship of healthy normal men and women we must start with the foundation of childhood.

The playground movement is a natural sequence to the pure milk and pure food movements. It is a step in the direction of a nation of healthy virile people who will have the power to make full use of their mental talents. Educational authorities have long recognized that education to be complete, must include not only the mental, but the moral and physical, and we find in the up-to-date school system provision is made for physical exercise for the pupils. It is now being generally recognized that no system of formal exercises can ever take the place of spontaneous outdoor play, and that the gymnasium at its very best is but a makeshift.

Health is of greater importance than large muscles, and there are still a great many people who look on a muscular man as a freak, and decry the use of athletics and gymnastics as weakening a man's vital resistance at the expense of his exterior muscles. This argument cannot possibly be applied to the play movement, for above all else outdoor play strengthens the vital organs and without strain to the weakest.

Were all children born alike of perfectly healthy parents and brought up in the best surroundings under perfectly healthy conditions, there would be no need to be alarmed at the present condition of affairs. But every medical man knows that this is not the case, and that to-day as in the past unless provision is made for physical exercise the majority of people get practically none, and, as a consequence, a tremendous proportion of the failures we see around us are caused by physical ineffectiveness. Who cannot call to mind the man of brilliant intellect who has had to give up a life work of usefulness on account of a physical breakdown? And one of the greatest reasons for this is the fact that while in childhood one may get sufficient outdoor physical exercise to keep one healthy for quite a long time, nothing in this world is lasting, and physical exercise must be kept up to the end if one wishes to retain physical health. But does not the average person fail to continue exercise on reaching maturity? This is unquestionably a fact, and possibly the greatest reason for this is because habits of physical exercise have not been properly fixed.

If everyone, man, woman and child, indulged in outdoor games I am afraid the medical profession would suffer severely, and would have to confine itself to the practice of surgery. But, unfortunately,



this condition of affairs does not exist, and the reason is not far to seek. It is because, not being acquainted with the joys of more than one or two games, the adult if he plays at all confines his attention to a game that is indulged in at only one season of the year, and for the remainder of the time omits to provide anything in its place. For instance, we find men who play golf all summer and nothing all winter, and they blame the fact that they feel worse in winter than in summer to the season and not to themselves.

This brings us to the purpose and aim of the supervised playground.

It is to not only provide a child with outdoor physical exercise during the period of growth, it is also to inculcate habits of physical exercise that will stay with the individual throughout life; and who will claim that this is unnecessary in these days of motor cars, elevators, street cars, etc., when all the exercise a man has to take is in bending down to lace up his boots.

Now, in order to provide for the child, the facilities for exercise all the year round it is necessary not only to provide supervised playgrounds for the summer holidays, but also to provide during the school term a convenient place to play, and encouragement and instruction along play times. We will now consider what can be done to provide for the child the place to play during school term.

Fortunately, in these enlightened days, we have not far to look. Every school in a modern city is surrounded by a large area of ground provided by school boards for the use of the pupils.

Most school boards are showing commendable wisdom in providing for future expansion by securing large blocks of land for future schools, and especially in our Western Canada is this necessary, on account of the rapid rise in the price of land.

But the school built, what of the condition of the ground?

Has it a fit surface for games or is it merely ground? Look round your own city and see what condition things are in, and you may reckon yourselves extremely fortunate if the school grounds are as they should be, ideal playgrounds. This leads us directly to the question of surfaces

which is equally applicable to school grounds and playgrounds. Of course, grass is the ideal surface for children's games, but, unfortunately, it is a surface which takes a long time to grow, and needs expert care if it is to last. For this reason we must consider such artificial surfaces as are obtainable in this country, and, after a great deal of consideration, it would seem that a cinder surface is best for many reasons.

If the ground is graded level and rolled and then a three-inch layer of coarse cinders well rolled is put down, and topped with a layer of fine cinders mixed with an equal quantity of clay, and put down, dampened and well rolled, we will obtain a surface which is never dusty—always looks good and can be played on right after rain. The cost of this surface varies according to the quantity of cinders available, but should not cost more than fifteen to twenty cents per square yard, including grading.

Then provision must be made for athletics, and jumping pits should be placed in a suitable position and filled with about one foot of sand.

Sand should also be provided under any stationary apparatus, such as swings, teeters, climbing poles and ladders, and giant strides, any or all of which might be installed on each playground, always providing a set for each of the sexes.

The next thing to be considered in connection with school grounds is the matter of organization and supervision, and the first step is to employ as a part of the school system, a supervisor of playgrounds. No doubt, every supervisor will have his own ideas as to organization, but a suggestion here will not be out of place, and will show a means of accomplishing several ends at once.

The scheme being used in Edmonton is as follows: Each school is to be organized as a community and will elect a council and mayor. This council should be composed of boys and girls and would meet at the call of the mayor. The council would appoint officials to look after the games on the grounds at recess time and after school periods, and older boys and girls would take charge of a group of younger children and teach them games and see that every child is occupied in some way or other.



One has only to go round to the different schools during recess time and watch the children to see that those who are full of vitality and energy are busy, but the children who lack that vitality and consequently are in greater need of exercise are sitting or standing about in idleness.

The thing to accomplish is to so arrange games that all are interested and the children are all drawn in together for fun and exercise. The older boys, of course, and the older girls, too, have their team games, such as football and basketball, but, unfortunately, there is too often wrangling and unpleasantness as an accompaniment to these games.

The system of organization outlined should be productive of good results, in not only providing all the children with something to do, but also instilling into the pupils a spirit of fair play and co-operation that is so desirable.

In order to raise funds for the purchase of such apparatus, such as balls, bats, nets and so on, as may be necessary for the games, it is proposed to levy a tax on each pupil of a small sum per term and so give every pupil a direct interest in the material, which would be the property of the school, and used only by the pupils on the school grounds.

As to the games to be played, there are many that the average person has never seen and rarely heard of that are not only of benefit physically, but also are full of good, healthy fun, and for use on school grounds those games which give the players a maximum of the twisting, stretching and bending exercises with a minimum of running, are the best, owing to the inadvisability of having the pupils over-heated on their return to the classrooms.

Baseball should not be played on the school grounds, not only on account of the danger of broken windows, but also because of the danger to the smaller children if the hard ball is used. The larger parks of the city should contain space for baseball and football fields, not only for children but for adults, and the obnoxious sign, "Keep Off the Grass" should be relegated to limbo, if we are to give children their birthright, the right to play on God's green earth, for surely a healthy child is

of more value than all the grass in Christendom.

In the winter, rinks could be provided in each schoolyard for skating and slides. Toboggan slides and snowballing games would keep everyone occupied.

Hockey should be confined to rinks provided in central locations, but not on school grounds, and teams organized from each school could be allotted time for practice and games.

The matter of supervised summer playgrounds is one the school authorities might very well take up with the city authorities, as these playgrounds would not only be of benefit to the children during the holidays, but could be used by adults during school term.

These playgrounds should be of an area of about ten acres and should be divided into one-half for the older boys and one-half for the younger children and older girls, the division of the latter half depending upon the attendance. The same surfacing as for school grounds could be used for these grounds, with the addition of some space devoted to grass and shade trees for rest during hot days. The playgrounds should each have at least two supervisors, one man and one woman, and, if possible a kindergarten teacher for the little ones. For the younger children there should be provided wading-pools and sand-pits with a supply of blocks and spades and buckets for building purposes. Benches for the mothers among the trees and a band-stand are also very desirable. For the older children from seven or eight up to about eleven, there should be swings, teeters, giant strides, sliding and climbing poles, and ladders set on a framework about twelve feet high. Any piece of apparatus which can be used to secure the sensation of falling or flying is dear to the heart of childhood, and one of the most popular pieces that can be secured is the chute. A chute will keep a large number of children busy for a long time, and is the one piece of apparatus never observed idle in a playground. For the older children separate apparatus for boys and girls should be provided, and should include the same articles as those for the younger children with the addition of horizontal and parallel bars, travelling rings, trapeze and travelling ladders on a framework fourteen

feet high. The space set apart for the older girls should be surrounded by trees and shrubbery, as girls do not play with the abandonment of childhood unless they are free from observation.

Of the apparatus enumerated above, the swings, teeters, giant strides, horizontal and parallel bars, chutes and sliding poles are the most useful and safest, besides being the cheapest to install.

As before stated, baseball with a hard ball should not be played on the playground, but playground ball should be substituted. Volley ball, captain ball, basketball, dodgeball, and various other games are all popular, and occupy a large number on a small space. The playground should also provide space for the seasonal games so dear to childhood, such as marbles and tops, as boys must have a good surface on which to play these games, and if the playground falls short they will take to the streets with consequent danger of accident.

For the practice of athletics there should be a space set aside for sprinting, and, if possible, a quarter mile or one-eighth mile circular track for longer runs. Pits for jumping and pole-vaulting are also necessary with the accompanying apparatus.

With such an equipment as outlined above, citizens could rest assured that the children were all provided for, as far as can possibly be foreseen.

The point must not be lost sight of that

the supervisor is the main necessity. He must be a man who not only has a knowledge of games and athletics and their physiological value, but must also have a knowledge of and love for children. And he must be a man of high character and well developed physically, as boys will naturally look to him for example.

To sum up, then, supervised school and summer playgrounds are a necessity in any city for the purpose of giving children a knowledge of games and an opportunity to develop physically. They are also great factors in the moral development of the child, if properly supervised, but the unsupervised playground is not only a mistake, but a menace.

The gang or social spirit in boys must be properly guided or it will turn to wrong channels and produce more harm than good, and eventually lead to boys committing crimes which will bring them in contact with the law.

In Western Canada we are up against the problem of assimilating the foreigner, and here the playground can be used to produce the best results. The little foreigner who plays with his Canadian fellows will learn their ideas and ideals a great deal quicker and better than he can do in any other way, and if we are to build up a great and united nation we must use every possible method to preserve our Canadian ideals and inculcate them in the strangers within our gates.

## THE CANKER OF UNTRUTH

### LYING.

#### Diagnosis—

A lie may be told by silence, by equivocation, by the accent on a syllable, by a glance of the eye, attaching a peculiar significance to a sentence. . . . No form of blinded conscience is so far sunk as that which comforts itself for having deceived because the deception was by gesture or silence instead of utterance.—*Ruskin*

#### Remedy—

Propose to thyself, as a supreme end, the rectitude of thought.—*Guyau.*

# THE NEED FOR MORE COMPLETE ORGANIZATION IN PUBLIC HEALTH WORK

By H. G. PICKARD, M.D.

Medical Officer of Health, Brandon, Man.

Read before the Third Congress of the Canadian Public Health Association, Regina, Sask.

In choosing as the title of this paper, "The Need for More Complete Organization in Public Health Work," I feel assured there is no one present at any rate who will deny that such a need exists. Neither do I pretend to say that no effort is being made to work out a more complete organization. On the other hand, I doubt if more rapid progress is being made along any line of education at the present time, than that of public health.

The general public is taking an intelligent and I may also say a critical interest in our work, which makes it all the more necessary that we should not rest on our oars or be content with the present state of affairs as regards organization.

This subject has already been discussed in conventions and articles have appeared at different times in our health and medical journals relating to the need for wider organization, and I think that at such a Congress as this is a most suitable time to bring the matter up again and to make an attempt at some more definite step than has as yet been taken.

Ontario and some of the Western Provinces have been taking very commendable forward steps in Provincial organization, and, I believe, they will very soon feel the benefit of the steps they have taken. I refer particularly to the dividing of the Provinces into health districts, with full time medical officers appointed for each district and all working under a provincial superintendent. Perhaps all the Provinces of the Dominion should be induced to adopt a similar scheme before anything further is advocated.

However, I feel that the time is at hand for the making of public health work a Federal or Dominion question as well as

Provincial. It is a broader undertaking than can be successfully handled either by municipalities or Provinces. It is a matter that vitally affects us as a nation in the making, such as Canada is at the present time. Our Government deems it wise to expend large sums annually in the conservation of our natural resources such as forests, fisheries, minerals, game, etc., and I believe it is time that the national health should be recognized as one of the most important natural resources of our country. One of our familiar texts is that "The health of a nation is its most valuable asset," and as public health officials it naturally falls to our duty to educate the public and our legislators to see the truth and the importance of this statement.

Statistics are reported from time to time detailing the financial loss to the nation from the ravages of tuberculosis and from the annual infant mortality. If these diseases are preventable diseases, and the vital statistics are correct, it follows that the statement of the financial loss is undoubtedly true, but so far, little has been done in the way of a national attempt to prevent this annual loss of millions of dollars. The infant mortality during the summer months in our larger centres of population is a matter that I believe calls for the greatest preventive effort possible, both from an economic and humanitarian point of view. Every child dying even in infancy is a direct national loss. On the other hand every child born on Canadian soil and raised to maturity is, in my opinion, worth to us as a nation, perhaps half a dozen of the average immigrants coming to us from foreign lands. How important then that the preservation and healthy rearing of

this home product should be a question of national concern.

Similarly it might be shown that nearly all of the questions affecting public health are Federal, as well as municipal questions, for example, the control of infectious diseases, sewage and refuse disposal, water supply, town and city planning in general, with the improvement of social and moral conditions. So far these questions have been left too much for municipalities to deal with in an isolated sort of way, but surely what is necessary for Regina or any other city along these lines is necessary for the Dominion as a whole.

In the Province of Manitoba, for example, we have what I consider a first-class Public Health Act on our statutes, but I am sure other medical officers of health must feel as I do that we are working along, each in an isolated capacity in our own municipality. We lack even Provincial organization so far as having any definite system or programme laid down to work upon from year to year. It may be said that the present plan leaves more scope for originality on the part of the health officials. This may be true in a sense, but there is always room for originality no matter how systematically the work may be laid out. Suppose, for example, that a campaign should be instituted during one season for the lowering of our infant mortality, superintended by the Provincial Board of Health, and that Board not only asking but requiring all municipal organizations to take some definite line of action and report at the end of the year what progress had been made. It appears to me that more definite results would be obtained. Furthermore, if the same principle were given Federal scope, the results would be proportionately increased.

Now that Dominion reciprocity has be-

come a reality, one great obstacle to a Federal Bureau of Health has been removed. Let me here quote a short article from a recent number of the *Western Canada Medical Journal*, which, I think, suggests a plan that in the main would apply to Canada.

"In England an association has recently been founded, the main object of which is to advocate the advantage of a State Medical service and to promote its adoption by Parliament. It is proposed that the service should be organized on an equality with the higher grades of the Civil Service, and be administered by a Board of Health under a Minister of Public Health with cabinet rank, assisted by a permanent staff of medical advisers. Entry to the medical profession should be by one State examination, and each member of the staff would be paid an adequate salary, increasing with rank and length of service, and would be entitled to a pension after serving for a specified number of years."

Such a movement as this in conjunction with the National Insurance Bill, shows the trend of public thought in the Old Land. And if such a scheme can be worked out to a practical issue in England where public thought is generally conceded to be somewhat conservative, it should give us the greatest encouragement to advocate progressive measures in this comparatively new country.

We are living in an age in which big things are being undertaken in industrial, commercial and scientific lines. The responsibility of educating the public and the Legislature to see the big things to be undertaken and attained in public health matters, rests to a great degree upon the Canadian Public Health Association. How can we best shoulder this responsibility?

#### THE INSATIABLE MIND AVARICE.

##### Diagnosis—

Those whose minds feed upon riches, recede from real happiness in proportion as their stores increase.—*Burton.*

##### Remedy—

To lay up lasting treasure  
Of perfect service rendered, duties done  
In charity, soft speech, and stainless days:  
These riches shall not fade away in life,  
Nor any death dispraise.

*Edwin Arnold.*



# THE LAND OF SPOTLESS TOWNS

By FLORENCE WITHROW, B.A.

(Concluded from the October Number.)



## Characteristics.

A people with such history are sure to be of noble mould. In patience, perseverance and indomitable courage the Dutch are superb, as is attested by their indefatigable efforts to preserve on the face of the earth their perilous land and by their heroic defiance of stern and insistent foes.

Mentally, they are of no mean calibre, and have produced some foremost scholars—Erasmus, Spinoza, Elzevir, and renowned painters—Rembrandt, Frans Hals, Paul Potter, and others.

As a colonizing nation they rank next to Great Britain, and in commerce they long held maritime supremacy. Some of their colonies are Java, Sumatra, Borneo, Ceylon, Guiana. The home land numbers four millions, and the colonies thirty-five.

## Spotless Towns.

A distinct trait of Hollanders is their neatness and cleanliness which reaches the point of mania. They scour and scrub both indoors and out. It is quite customary to see furniture brought to the sidewalk and to notice high racks for stair carpets and rugs, but the law requires all beating and dusting to be finished by 10 a.m. These domestic operations are allowed in the streets to save the dainty flower-bedded back yards, formal Dutch gardening being a feature of almost every home.

On many houses from the pointed gable is a projecting beam with pulley and rope. An innocent tourist thought this was a gallows for the miscreant who dared soil the immaculate front steps. Its real use is to hoist stores to the attic as cellars are



too watery. A characteristic Dutch house is a narrow, "lean" edifice with sharp gable and a decided "lean" out of the perpendicular, caused by sinking piles. The reflection in the canals is most picturesque of these tall, brick structures, with red roofs and odd chimney pots and fronted by a straight row of precise trees. As to steeples which are frequent on church and Stadthaus, Victor Hugo says: "They are like an inverted salad bowl upon a judge's cap, a sugar bowl upon the salad dish, a bottle upon the sugar bowl, and a golden thimble on top of all."

#### Street Scenes.

The street scenes are novel, and in Rotterdam and Amsterdam bear resemblance to Venice. Canals run parallel with the roads and are crossed by drawbridges. Barges and canal craft are seen even in retired localities. Striking contrasts are frequent, such as—on one side handsome stores or residences, with polished plate glass windows, and across the canal warehouses with bales and casks. Shops are reflected in the water and sails in the shop windows. The lights and shadows are exquisite.

Open squares, occasionally with a windmill, are scenes of ceaseless activity with vegetable, flower and fish markets. Harnessed dogs, who indeed lead a "dog's life" of hard labor draw milk cans, carts, etc.

#### The Peasant Dress

is distinctive of the different provinces that of Zealand, Friesland and the Islands of the Zuider Zee, notably Marken, being most characteristic. A feature of all peasant women is their numerous petticoats, eight to ten, and their ample comfortable waists. With the men, also, the nether garment is ample, the baggy trousers being like small balloons.

The special feminine vanity is the headgear, sometimes a close-fitting cap, fluted or draped with copious veil and fastened with corkscrew ornaments, sometimes a curious gold or silver casque, maybe surmounted by a hat. These cost one hundred dollars or more, and glisten like helmets, suggesting the Valkyrie.

#### Education

is compulsory, and the school system excellent. Holland boasts the lowest percentage of illiteracy in the world. The

State provides technical, industrial, and night schools, and also a gymnasium in every town of over 10,000. Rotterdam alone has one thousand schools. The study of English is obligatory.

There are four universities several centuries old. That of Leyden was inaugurated by William the Silent as a reward of heroism after the memorable siege. The courageous inhabitants were given the choice of a university or of exemption from certain taxes. They wisely chose the former.

We lately learn of the proposal to establish an International Law Academy at The Hague, each country contributing one member to the faculty for a term of three summer months. Lectures will be given by the world's best arbitration experts. The Institution is unique in design and magnificent in prospect, and surely presages vast good and quick progress toward the age of universal peace. A worthy adjunct is it to the exercises and influence of the great Peace Palace Conferences. This palace was formally opened on Aug. 28th of this year. The King and Queen of Holland were present, as was also Mr. Andrew Carnegie, an indefatigable worker along these lines.

#### Dutch Art.

has long been celebrated and to-day holds a distinguished place. It is noted for originality and seems indigenous to the soil. The artists portrayed the life about them. Bad weather kept them much in doors, hence their skill in representing interiors.

The Dutch school has a sevenfold classification according to subject, viz., genre, still-life, landscape, marine, animal painting, portrait, and heroic. The genre depicts scenes in every-day life and in every grade of society—crofter's cot, burgher's tavern, villagers' fetes, and fairs, the grand dame's garden. Realism is the keynote, even to minutiae, as the stitches in a patch, wrinkles on a face, carving on a chest, etc. To many this class of art is not inspiring, and they conclude that Hollanders are the ugliest folk on earth. Nevertheless, these works are valuable as picturing actual life and domestic conditions. Noted genre painters are Van Ostade, Teniers, Gerard, Don, Jan, Steen. The latter is the Dutch Hogarth, and his

satires on debauchery and buffoonery have a moral purpose. With this view, these vulgar people engaged in rude amusements, become an interesting study.

In still-life, the Dutch are unsurpassed in color and light on flowers, fruit, game, fish, glass, metal, satin, etc.

The land and sea-scapes depict nature very beautifully. Nowhere are imitations of sky more striking. In this rainy low country the sun struggles through a nebulous veil, causing frequent changes of light and shadow and giving soft suffused light. In atmospheric effect Dutch paintings are unsurpassed. Broad, flat meadows stretching into the gloaming, and quiet pastoral scenes give a repose of line and color. The silence seems visible and one feels lulled.

The sea-scapes exhibit the same sinister qualities. Frequent subjects are: Fleets of fishing boats, draughts of fishes, North Sea storms, and battle pieces. In the days of Holland's naval supremacy when Van Tromp returned with broomstick at high mast to indicate he had swept England under Blake, from the seas, the Government furnished special frigates for her artists that they might sketch the sea fights in actual progress. Just a few notable sea and land painters are Cuyyp, Van der Velde, Wouwerman Ruysdael, the prince of melancholy, and Hobbema of the well-known trees.

In animal painting Paul Potter holds the palm. His famous Bull was once placed by Napoleon beside Raphael's Transfiguration in Paris. The sheep cattle, with soft dun shades, received treatment almost as personages. Long-tailed sheep, with shepherds knitting, is also a favorite subject. Mauve and the veteran Israel are celebrated for these.

Of heroic and portrait painters, Rembrandt is the peer, with a worthy predecessor, Frans Hals. Their themes were burgo-meisters, in rich mantles, silken scarfs and plumed hats, arquebusiers in gorgets, doublets and Spanish top-boots, Guild Meisters with banners. The costumes were costly and ornamental, adopted from the Spanish, and reveal the opulence of those prosperous days. Rembrandt's Night Watch has been called "more than picture, spectacle rather." The crowd of armed, impetuous men seem actually set-

ting forth from the guardhouse on patrol. The effect of light and shadow and of noise and action is masterful.

#### The Anatomy Lesson

is less pleasing, but more striking in chiroseura, corresponding to diverse movements of thought on the countenances of the assembled physicians. They are intent on the explanation of Dr. Tulp, who dissects an arm. Powerful is the contrast between the livid, rigid corpse and the ruddy, vivacious faces of the living men.

As Dutch and Flemish artists are confused, I mention a few of the latter. In subject and technique, the schools are similar, but the following are Flemish from Flanders, now Belgium. Van Eyck, Memling, Matsys, Rubens, Jordaens, Van Dyke.

#### Principal Cities.

The capital is The Hague, where is the Royal Palace and the dismal Parliament Buildings, called the Binnenhof. This curious old pile in characteristic Dutch style, was the residence of the Stadtholders, and is replete with thrilling memories. The Maritshuis, or Art gallery and the House in the Woods (Haagsh Bosch) are also celebrated. Its octagonal room with dome and mural frescoes by Rubens and Jordaens, and by strange coincidence significant of Peace, is famous for the first Peace Conferences. Henceforth these will meet in the magnificent new Peace Palace, where, let us hope, the world's feuds will be settled without strife. Then shall be realized Tennyson's glorious day when

"War drums throb no longer and all battle flags are furled,

In the Parliament of man, the Federation of the world."

The finest parks in Holland are in The Hague, one having been spared by Napoleon upon the citizens paying a large sum. This forest way leads to Scheveningen, the fashionable seaside resort.

Amsterdam, built on ninety islands, and with its harbor three metres lower than the Zuider Zee, is the chief commercial city. Its population is over half a million, of which sixty thousand are Jews. The principal buildings are the Palace, Nue Kirche, the Beurs or Exchange, and Ryck's Museum.

The Palace was the old Town Hall, finished in 1665, at a cost of \$3,000,000. It is rich in carved Italian marble and contains the largest ball-room in Europe. During the ephemeral glory of Napoleon I. this was the third city of his Empire, and when he made his brother Louis King of the Netherlands, this palace was presented and sumptuously refurnished with Dutch money. By a strange irony of fate, it was the son of this brother and Hortense, Josephine's daughter, who became Napoleon's successor, styled Napoleon III., the title Napoleon II. having

all ports. From India alone come one hundred ships a year which have been unloading their precious spices and silks since the days of the renowned Dutch East India Company. Rotterdam was the birthplace of the scholar Erasmus, and his humble house is shown.

A still humbler house is visited in Zaandam, where Peter the Great lived in 1697 when learning ship-building at the arsenals. Disguised as a peasant, the autocrat of Russia lived and worked as other laborers. Eighteen years after, he, with the Czarina, returned and wept in



FISHER FOLKS AT VOLENDAM

been reserved in honor for the hapless young King of Rome, Napoleon I.'s own son.

Diamond cutting is an important industry and supports ten thousand Jews. The grandson of the old Israelite who cut the famous Koh-i-noor, is working to-day at his ancestral trade.

Rotterdam, as a transit port, has the best situation in Holland. It has a waterway by the Rhine to Germany, and by the Maas to England. Along its famous quay, the Boompjes, are vessels from

gratitude for the life lessons learned here. To this simple cabin have come kings and princes. On a marble slab are the words "Czarevitch bow down, here is the cradle of thy Empire, here was born the greatness of Russia."

Leyden, Haarlem and Delft, the latter the shrine of the nation's father, are all important. In the days of Spanish tyranny they suffered cruel wrongs, but their spirit was never broken. The sieges of Haarlem and Leyden are well known and tell a tale of heroism not surpassed in history.

Where butchery, starvation and pestilence flourished, now blossom acres of cultivated bulbs.

Perhaps in no country in the world is a nation enjoying so fully the rewards of its own labor, both materially and morally. It may not seem a high destiny for

a nation to be ordained to pump water out of peat bogs and morass, but the enduring and ennobling influence on the national character is manifest. Of a truth, the land now blossoms with the bulb and flows with milk and cheese.

## THE END



## THE IRASCIBLE MIND

### IMPATIENCE.

#### Diagnosis—

Th' impatient courser pants in every vein,  
And pawing, seems to beat the distant plain;  
Hills, vales, and floods appear already crost,  
And ere he starts, a thousand steps are lost.

—Pope.

#### Remedy—

If thou intendest to vanquish the greatest, the most abominable and wickedest enemy, who is able to do thee mischief both in body and soul, and against whom thou preparest all sorts of weapons, but cannot overcome, then know that there is a sweet and loving physical herb to serve thee, named *PATIENTIA*.—Luther.



# THE DOCTOR'S FIRST DAY AT "THE HOUSE"

By POLLY

From the car line in toward X street the doctor had noticed the walks were freer from children than elsewhere in the south end, and as he reached the House he saw why. In the wide play-yard the children were patting cakes and caves at the sand boxes, swinging on high and low swings, and crowding stout teeters. A ring of youngsters with two older girls leading off were singing in a circle, some sort of game, full of bowing and gestures. Vines grew up the wire fences, and window boxes on the ledges of the House were green with foliage. In the shade were several perambulators with drowsy babies in them. As the doctor paused to view the grounds one girl who tended the babies left, as another ran up with "Your turn now, Sadie's waitin' for you," and a moment later Sadie and her new partner on the high swing were "pumping" much higher than the yard fence, hair streaming and eyes shining. The doctor stepped in, took off his hat, ran his fingers through his crop of curly hair, stooped for a drink at the "bubbler" which happened to be not in use. The whole scene took him back quite a good many years. A quiet smile came into his face. He had known all these kinds of fun in the old home days. His smile widened into a broad grin as he heard through the fence the crack of a bat and the cries, "Strike two," "A peach, clean into centre field," "Second, make it third, go on." "Oh, you Johnson." Walking around the high fence which shielded the House from soaring balls, he emerged upon a well rolled baseball field. From the father end of the field a tall chap waved his cap. "Coming, Irv." As doctor and director gripped hands with the heartiness of old college chums, the boys took in the doctor with interest, for any chum of the director's must be "pretty near all right." Meanwhile the doctor was hearing, "What do you think of my boys, some ball players, eh? The Tigers against the Nelsons to-day, and the winners play St. Andrew's to-morrow. But come into the

House. You must see what's doing. Yes, I can leave the game all right, Clark, of the Varsity Juniors is in charge. Come in, I want you to see the milk depot." Leaving his hat and cane in the office where a pleasant-faced young woman was typewriting cards for a very well filled filing case, the doctor was led into a big bare room. "The primary room on Sunday," the director explained, "and the gymnasium two nights drill hall for our Scouts and Guides two other nights, and in use for the Centre Club, the debating team, or social affairs, the other two nights of the week. Yes, it's not very well adapted for gym uses, doctor. I know you'll criticize the height of the ceiling, but we keep the windows open and it's a lot better than no place at all. Our fellows need and ought to have a real good gymnasium, and I've hopes of their getting it soon now. No, we are not expecting to build a new building, but the new school building going up on K avenue has a splendid gymnasium in course of construction, and a swimming pool that is the last word. The school premises will be open every evening for any organization of the neighborhood, gymnasium included. I'm sure I don't know how I would face this winter if this chance were not open, we are so crowded. But Clark will take our fellows two afternoons after school, and Prof. Martin's son, Max, is teaching our Men's Club to box, and they are to have an evening there, besides a number of other chances it offers us. You remember Ethel Austin? Well, it's her husband, Prof. Graham, who is principal of the K. avenue school, a modern-minded Christian gentleman. You must see them. Ethel will be delighted to see you. She and my Alice are great friends. Such a home as they have." The director spoke a bit wistfully. "They live in Alder Hills, you know, fine bit of orchard, big garage and a house that makes me,—O, well, what's the use! Alice and I wouldn't change places with anybody on earth, not anybody, but just the



same it does us good to get out there with Ethel and Graham once in a while, and forget that there are any families that never saw such a home."

"This is the Penelope Club, not a large attendance to-day, only twenty-four. But its pretty warm yet for girls to settle down to inside club work, though they have done considerable in handicraft work in the playground shelter this summer. Miss Ryerson, I want you to meet my old friend, Dr. Irving Hardie, who has come to Toronto to settle. He's a bachelor, and I know he's interested to see how we are trying to teach the next generation to sew." Miss Ryerson, a gentle-voiced little woman, answered in similar vein, showing her love of fun in humorous comments as she displayed the needlework of her little girls. Her three helpers, all young matrons who had volunteered to teach with her, proved to be very much interested in their young charges. While they remained in the sewing room the director showed his friend the sewing machines and lockers full of material used by the older classes. Evidently Miss Ryerson knew how to develop the educational values in needle work as well as the utilitarian values, for though simply made, most of the garments displayed had well balanced color schemes and nearly all were ornamented with hand work. Not only was there embroidery of the usual dainty sorts, but borders in colors that appeared to be woven in the material, which were really stitches. A plain frock of grey crash was ornamented with a border in blues and old rose and black, and it caught the doctor's fancy. "Wouldn't I like a table runner of that stuff bordered just that way, to go in my waiting room." Miss Ryerson had found a customer and gladly took the order for one of her class girls to execute, and before he left the doctor had a whole color arrangement for his office, all pictured out for him. But the director led him through a brick colonnade into a wing of the House, past a bulletin board which noted five clinics. Along the colonnade were many perambulators and in the waiting room were many women and children each with a basket of bottles. The milk depot was about to open. The genius of this work, the nurse, a big, broad, motherly woman, greeted them with a warm deep voice, as she wrapped

bottles preparatory to the first rush. Her little room was as shining white as paint could make it. The ice box, now open, was a model of order and cleanliness. She explained how the milk was delivered to her already pasteurized from the hospital, was tested for temperature and immediately stored in the ice box. With keen professional interest the doctor heard her tell of the wonders wrought by regular feedings of pure milk to babies apparently dying, of anaemic mothers fed into health, of careless or ignorant mothers convinced of the necessity of cleanliness, and taught how to effect it. As he listened to her chats with the mothers who came for milk, heard her bits of homely wisdom given out where, apparently needed, he had his first vision of the *ehuigweibliche* exerting itself as the eternal motherly. "Indeed, Miss Barrows does mother the whole neighborhood," said the director, as they left the milk depot. "I think she has an especial tenderness for the young foreign mothers about us. It's a fact that they seem to really desire children more than we of Anglo-Saxon blood, and they take such delight in their babies. But they are so pitifully ignorant of safe and sensible methods of caring for them. It takes persistence and downright threatening sometimes to make them give up some grandmother's superstition, but once they do yield, and the baby really improves, their joy is equalled by their loyalty to the nurse. Most of the ailing babies are brought here every week to be weighed," and he opened a door into a big room with geraniums at the white curtained windows and a little fire on the hearth. "Two city nurses are in attendance and every baby's record is kept. In here," and they passed to a small white room, "the doctors examine and prescribe for any who are in need of special care. You see we have a pretty good supply of clinic necessities in the case here. But our latest pride is the Gorley Memorial. Deacon Gorley's only daughter was saved to him by an emergency operation while on ship board, coming home from France, and his gratitude to God took the very wise expression of providing for other's extremities in this way." Across a narrow hall and the doctor was ushered into a fine little operating room with table of plate glass and nickel, instrument cases and stands, every thing

complete for quick work. In another small room beyond, a sort of sitting room for the nurse, there were wardrobes holding gowns for the doctors and nurses and a screened off portion offered privacy for the partial disrobing of patients for examination. On either side of this room opened two small wards for male and female patients, only three beds in each one, but enough, the director said: "Most cases are known of long enough before the need of operating to get them cared for in the regular hospitals, but occasionally we care for a minor case which really needs only a day or two in hospital, adenoids, for instance, and there are often obstetrical jobs to be done here. And folks needing "tinkering" who have not been residents of the city long enough to rightfully claim city hospital care, we look after just because they are our neighbors. And, doc," a whimsical smile on his lips, "here's where I expect to tie you up. Good old Doctor Miles has given us Friday afternoons for years, but he's going abroad this fall, and I'm glad because he and his good wife need a play spell if ever anyone did, but it's going to leave a big gap in our work. His specialty is supposed to be eyes and ears, and you'll find his case records very interesting. But I think his best work to our community has been the discovery of subnormal and defective cases. The children whose faulty eyes and ears he has corrected are, of course, better able to hold their own and profit by usual teaching. But a large number of people, young and old, whom we have been blaming as bad, he has taught us were defectives who are to be pitied." The doctor was all attention now, "Yes, that's just what I saw in Germany. Over there we used the Binet tests, do you?" "With modifications. We find Canadian youngsters just a little bit different in their natural aptitudes, but the idea is the same, testing the case by a standard which is a low average normal." "But what can you do with them? Our Government has not made any provision for these folks." "Right, and it never would, if there were not sufficient number of recorded authentic cases to prove the need. That's one way we are helping society to take care of itself. And month by month a larger public is getting to know of these facts. So when the Government does establish the neces-

sary special graded schools, and the farm colonies, there will be very few to object to the use of public money, and, moreover, there will be a little group of people ready who know how to live with and take care of these classes." The doctor took a long breath, "Well, old man, I guess I'm hooked, I didn't mean to saddle myself with any set jobs, but it sure is a chance to get in a few licks for the general good, and I've got the time now that I am waiting for cases. It's a go. When will I start?" "Friday afternoon, if you will, no use in waiting. But, Doc, come on up to our apartment and see Alice, it's getting near dinner time. You'll stay, of course you will. Oh, we dine all together down in the lunch club, and you'll have a chance to meet all the family." Nothing loath, the young doctor accompanied the director up to the floor on which a suite of four rooms and bath was reserved for the director's own family. A big comfortable living room, with wide windows, walls lined half way up with bookshelves, an open fireplace where a big jar of autumn leaves now gave the room the touch of warm color, which, in winter, the fire supplied, comfortable chairs, reading table and cushioned divan that spoke of the quiet hours of real family life, possible even here and in the midst of so many activities. Off this room opened "Mother's" room, a little feminine corner with sewing machine and low chairs, and many businesslike cupboards and drawers. An airy bedroom, a very jolly nursery where young Jack reigned supreme, and the bath room. The doctor was shown all the little domain and voted it very complete. Certainly it was not a pretentious domicile, but neither were its occupants pretentious. Pretense was not a quality of their world. But homely it surely was. "A world shut in and the world shut out," he reflected, "that's how a wise man defined a home, and it seems to me John has it." And aloud he said, "The charm of it all to me is that your whole life is here, work, home, play, it's all of one piece. For I suppose your wife is contented here." The director's face lit up. "Contented? Why Irv., she just is contentment itself; she's my main spring and my balance wheel at once. Has time to help in all sorts of ways, and yet keeps the home spirit for ourselves. She don't half guess how much

I owe to her. You see she'd been in settlement work while I took my theological course, and really knows more about it than I do. Preacher that I am and always hope to be, she's the one who always maintains the high view, the far vision of what this work can mean. The minister is my wife, Irv. I teach the Word, but without her I never would have lived it as I hope I am doing now. Was it Ruskin or Carlyle who said, 'Blessed is the man who hath found his work, let him ask no other blessedness'; well, I would make this addition, Blessed is the man who has found his work, and his wife. Anything else he wants

let him get busy and earn, but for these two let him humbly thank God." When a few minutes later the lady herself came in, a rather plain, sturdy woman with quick, dark eyes and very mobile mouth, her hand clasp as frank and hearty as a boy's, the tall doctor stood looking down into her welcoming smile and wondered with a wistful feeling in his heart, if this was what a home might mean to him some day. And when at the news that he was to take the Friday clinic, she said, "Fine, then you are really one of us," he felt that he had indeed been received into a new order whose work was love and whose reward was love.

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### MENTAL PALSY

#### VACILLATION.

##### Diagnosis—

There is nothing more pitiable in the world than an irresolute man, vacillating between two feelings, who would willingly unite the two, and who does not perceive that nothing can unite them.—*Goethe*.

##### Remedy—

He that is wise and well instructed standeth fast, not heeding which way the wind of instability bloweth, but so that the whole intention of his mind tendeth to the right and best end.—*Thomas à Kempis*.

## Editorial

### A NATIONAL DEPARTMENT OF HEALTH FOR CANADA.

During the past summer there was held in London, England, the 17th International Congress of Medicine, and at Brighton the 81st Annual Meeting of the British Medical Association. Thirty-two years ago there was convened in London the First International Congress, made ever memorable by the scientific crowning of the honored guest of the Association, the immortal Louis Pasteur, who had shortly before that performed his crucial experiment in the protective inoculation of one hundred sheep against virulent anthrax. The quality of Pasteur's triumph will be estimated when it is recalled that in 1872, less than ten years before, the "Beginnings of Life" was published by A. T. Bastian, Professor of Pathology in University College, London, whose experiments seemed to authorize him to say: "The comparative experiments not only lend no countenance to M. Pasteur's theory that fermentation cannot be initiated without the agency of living ferments—they are on the contrary wholly opposed to this restriction."

This year's Congress saw the crowning of a citizen of another great nation in the honors bestowed on Prof. Paul Ehrlich, of Frankfort, Germany, who in the opening remarks of his address on "Chemiotherapy" said: "Are we not here in a country that has produced two men who must be considered amongst the greatest men of all times, Jenner and Lord Lister? Like a star in the darkness of his age, Jenner's great achievement, which broke the power of such an awful plague as smallpox, still shines with peerless splendor. And on the occasion of the last Congress that was held here we gathered with wondering admiration round Lord Lister, who through his introduction of antiseptics, brought about a revolution in surgery which stands alone in the history of the art of healing."

We have summarized in a paragraph the recent triumphs of a science which had

been blindly groping for a primal truth for nearly two thousand years since Virgil, picturing the process of spontaneous generation of bees within the carcass of an ox and suddenly emerging therefrom, spoke with as much knowledge when he wrote—

"Donec, ut aestivis effusus nubibus imber  
Erupere; aut nervo pulsante sagittae,  
Prima leves ineunt si quando proelia  
Parthi,"

as did Professor Bastian ten years before the memorable Congress of 1881.

Almost half a century has passed since we became a nation and more than thirty have gone since the *omne vivum ex vivo* of Pasteur became a demonstrated fact, and we ask ourselves what contribution has Canada made to the science of medicine and yet more to preventive medicine? Our answer must be: "She nurtured Osler and perforce he must migrate to where his talents would have a wider field; a Crozier passed out as a philosopher, his ambition in medicine stifled in London fog; Professor Barker enriches a foreign city with his versatile talents, while our universities cultivate genius, only to see its brilliant coruscations illumine the heavens over some foreign city."

Why these tragedies? Why must Canada continue to behold the forced exiling of native talent? Why, helpless and potent, must we in every field of scientific activity go abroad for light and leading? An architect is needed for great public buildings or some scheme for city planning, and we go to Boston or London! Is it an engineer to devise waterworks? Then we seek him abroad; and so on it goes in every field of scientific investigation and achievement. While we are prating our loyalty and magnifying the quality of our patriotism as Canadians we in practice show that we have no confidence in ourselves. We have no historic pride in our past, since we have no scientific Pantheon wherein are gathered any mighty dead, and as for the living they seemingly are not.

At Ottawa matters scientific have not



and never had any Valhalla. Scattered here and there in departments, administered by whatever minister the exigencies of the moment may dictate, are to be found scientific services with individual physicians, veterinarians, chemists or bacteriologists working in silence mayhap in some old building cast off as a dwelling or at times burrowing like moles in some cellar next to a storehouse for waste paper. Any citizen going up to the capital seeking for information,—much more some foreigner—will waste a day going from warehouse to office building seeking for the chief of a laboratory, or other scientific service, and would find him perchance solitary and often sad, wearing his life away—"unwept, unhonored and unsung"—the *simulacrum* of a scientific service. Surely the glorious achievements of the past thirty years in science deserve a higher and better recognition in Canada! Surely it is high time that some centre of research be established around which the scientific services of the several departments could be grouped; where laboratories, large and adequately equipped, would be created where every phase of economic scientific investigation and preventive medicine could find adequate illustration and expression! It is to the splendid achievements of Louis Pasteur, ever referred to by his compatriots and co-workers as *le Grand Maître* that public health became organized in l'Institut Pasteur, erected and equipped in Paris by the Government, by his countrymen and through the practical recognition by grateful Governments elsewhere, in the fields of sanitation, veterinary science and agriculture. Laboratories of *bacteriology* and *parasitology*, of the biology of plant life and the economics of foods and drinks were established and have carried on for more than twenty years their varied activities in a dozen fields of practical work. And yet it is in the United States that we see in the Marine Hospital Service, an organization dating back to 1798, the nucleus of what has now become the Public Health Service of the Federal Government. Intended primarily as a service for sick seamen it has gradually widened until it includes the quarantine service at home, and abroad in the dependencies and at foreign seaports the immigration service, and today is carrying on multiplied activities in

sanitary investigations within the States. These include those on international waterways and interstate streams; while its officers are ever at the service of any State inviting its assistance and co-operation. In the Southern States it has for years past collaborated with State Boards of Health in stamping out the hook-worm disease and pellagra and in the trans-montane States of California and Oregon, its officials have investigated the sources of and stamped out the plague. It maintains at Washington its central Hygienic Laboratory and has district laboratories elsewhere, and maintains four divisions including bacteriology and pathology, chemistry, zoology and pharmacology. It is at present extending its investigations and control to interstate milk supplies and other agencies through which tuberculosis is extended, while diseases spread through animal parasites and through defective foods are receiving ever-increasing attention. It not only controls the commercial output of vaccines, serums and toxins, but also manufactures the same for its own services. Year by year we see its influences over the public health ever extending, and its public usefulness becoming ever more recognized and manifest.

Every progressive European country has its counterpart of such a service and now Japan and even Cuba have their public health services, and the latter a separate portfolio with its Minister of Health. Canada alone seems to await "the troubling of the waters;" still is seeking "its pool of Bethesda," its national porch of healing for the people. Surely the time has come and the hour has struck when we shall cease to be simple mendicants, taking of the gifts which other countries have supplied through their scientific workers for the mitigation or suppression of the ills of mankind, when at Ottawa the Government with its abundant revenues will organize and equip a Department of Health in some degree adequate for the yearly growing needs of the people and demonstrate that in the higher arts of nation-building, Canada, for whom is the twentieth century, is as ready and capable of emulating the achievement of the great nations in science as she has shown herself worthy in the fields of merely material progress.



## AN ONTARIO MEDICAL OFFICER OF HEALTH.

It pleases us mightily to receive from many parts of Canada, news of the splendid work being accomplished by the various Medical Officers of Health. One of the keenest bits of work has just come to hand from Atwood, Ont., where D. A. Kidd, M.D., is the efficient Executive of the Board of Health of that town. We are publishing these pamphlets here, because we believe that they are the result of the deep interest being engendered in the health officers throughout Ontario, through the impetus given by a sympathetic Government and a highly efficient and sane Provincial Board of Health. Dr. Kidd is to be congratulated upon having produced one of the neatest, brightest and most readable bits of literature upon this public health problem that we have seen for many a day,—and we are certain that his people will respond in no uncertain way.

### Environment.

"All putrid and decaying animal or vegetable matter must be removed from all yards on before the first day of May in each year." So the law reads. Surely to ask that the old winter manure be taken away in the early part of the season is not rushing the above Act. When days run into weeks and the latter into months, one is not doing his duty as a good citizen to leave filthy incubators of flies under his very nose. This applies to everyone, whether in village or country. It has a greater application where people are closely domiciled as in a village. What excuse has any one to offer who keeps a steaming volcano of manure at his door? "Wash and be clean." Let us run on, ever on, in the path of beauty, health, and progress. This is no petty personal matter. It is national. Fair Canada! Let us be a sturdy progressive nation. Home, Sweet Home! Be it ever so humble, let it be clean. Ninety-five per cent. of all flies are bred in manure. In warm weather the eggs of flies develop into the maggot state in about eight hours. They devour all kinds of filth and at a later date disgorge for something more suitable to their taste. Their legs are well constructed for carrying about germs of disease. Starve them by having clean yards.

Imagine a large canful of milk standing over night, in Elma, near to a steaming

volcano of manure or close by an over-scented water closet. The soft breezes of the night waft the gases. How can that milk be anything but off flavor?

### Elma School Bulletin No. 1.

(Anti-tubercular.)

1. *Don't spit on the sidewalk or street or floor*—Because skirts and feet of others may come in contact with it and so spread infection. It may dry up and blow about in the dust.
2. *Don't moisten your fingers in your mouth in turning leaves of a book*—Because there may be germs in your mouth which would be left on the leaves and another doing likewise may catch disease.
3. *Don't put the end of a pencil or pen in your ear*—Because another handling it might get trouble from it.
4. *Don't wipe your slate by spitting on it or licking it*—Because your saliva may not be pure. You may be cultivating several kinds of germs in your tonsils and hollow teeth.
5. *Don't put pens or coins in your mouth*—Because diseased persons may have done that with them. Money is a carrier of disease.
6. *Don't brush your shoes or clothes in the kitchen*—Because diseased particles may get in the food and so affect others.
7. *Don't play in the gutter*—Because all kinds of filth run down it in rain storms. Your clothes may thus be a carrier of disease.
8. *Don't wipe your shoes with your handkerchief*—Because your shoes run against disease, which might thus get to your mouth.
9. *Don't share your cake or apple with your playmates*—Because disease may be thus carried from one to another.
10. *Don't sleep in a room with the window perfectly closed tight*—Because fresh air and light are great remedies for the lungs.
11. *Don't take little, short breaths*—Because that does not expand the chest. In the fresh air take a very long breath several times a day.
12. *Don't handle the dog and cat*—Because they chew rats and mice, who are carriers of disease.
13. *Don't go with unclean finger nails*—Because disease can lurk there.
14. *Don't go to school without attend-*

*ing to the toilet of the mouth and nose—* Because these are great sources of disease.

15. *Don't cough or sneeze upon any person—* Because a fine spray may carry across a large room, conveying disease.

16. *Don't go to school unless perfectly clean and neat in every way—* Because cleanliness is part of your education. Uncleanliness breeds disease. We want to be a sturdy race. Fair Canada!

#### MEDICAL EXAMINATIONS.

The results of the first examination under the new Canadian Medical Act are announced by Dr. R. W. Powell, registrar. Seventy-one candidates presented themselves at the examination. Forty-four were successful, eight were referred back to the council, having failed in not more than two subjects, and nineteen were rejected. Following is a list of the successful candidates: L. A. Aubin, Rawdon, Que.; I. F. Belanger, Quebec; I. A. Bergeron, St. Antoine de Tilly, Que.; C. R. Bourne, Montreal; C. E. Brown, London, Ont.; I. Cumming, Ottawa, Ont.; A. P. Davies, Hull, Que.; A. S. Duncan, London, Ont.; J. B. Gallagher, Bath, N.B.; J. F. Grant, Montreal; E. H. Gray, Montreal; W. J. Hepburn, Montreal; L. G. Houle, Bras d'Apic, Que.; W. G. Hutton, J. J. Irven, J. A. H. Joyal, R. F. Kelso, Montreal; J. H. G. Lacasse, St. Genevieve de Pierrefonds, Que.; J. L. Lamy, St. Flore, Que.; A. Leger, Montreal; A. F. Macaulay, London, Ont.; F. H. Mackay, Montreal; I. F. MacKnight, Tamworth, Ont.; L. W. MacNutt, Ottawa, Ont.; A. A. Martin, Pierce, Neb.; A. J. McCalla, St. Catharines, Ont.; W. G. Morris, Vancouver, B.C.; R. L. Morrison, Barrie, Ont.; P. Nase, Verdun, Que.; J. G. Phillips, Labelle, Que.; W. S. Pickup, Fort William, Ont.; J. L. Poirien, Craigmont, Ont.; L. K. Poyntz, Tavistock, Ont.; A. L. Raymond, Williamstown, Ont.; A. Stewart, Ottawa, Ont.; J. W. Sutherland, F. S. Swaine, Montreal; A. T. Turner, Bowden, Alta.; E. J. O. Wolcott, Montreal; L. W. Walkey, Hanover, Ont.; J. T. Wall, Kansas City, Mo.; W. G. Wallace, Metcalfe, Ont.; H. C. Workman, Kingston, Ont.

#### A DISTINGUISHED GUEST.

Canadians have entertained a most distinguished visitor, during the past two weeks, in the person of Sir Rickman John

Godlee, President of the Royal College of Surgeons of England. En route to Chicago to attend the Congress of Clinical Surgeons of America, he spent several days in Toronto, where he was made the occasion of many festivities. One of these was the reception given to Sir Rickman and Mrs. Godlee at the Academy of Medicine by the President, Dr. H. J. Hamilton and Mrs. Hamilton. The great surgeon also responded to the request of the Academy for an address, and spoke to a very large audience assembled in the Physics Building of the University of Toronto, on the evening of November 4th, from the subject, "Foreign Bodies in the Air Passages." The University of Toronto in Special Convocation on November 5th, conferred on Sir Rickman the degree of LL.D. While in Toronto, the distinguished surgeon was the guest of Dr. H. B. and Mrs. Anderson.

#### THE CANADIAN ARMY MEDICAL CORPS.

Sir Ian Hamilton, General and Inspector of Overseas Forces, came to Canada this past summer to inspect Canada's army and make a report thereon with suggestions. This exhaustive report has now come to hand, and from it we are able to copy the following:

"Hospital accommodation in the camps was excellent. In Canada, as elsewhere, the medical corps keeps well ahead of every other branch of the service in the completeness of its preparations for war—a state of affairs due largely to the wholehearted support it receives from the medical profession in all its grades. A militia is, or rather ought to be, the expression for purposes of war of every form of national activity, and other departments of national life such as the railways, the telegraph companies, motor and motor cyclist unions, etc., might well take a leaf out of the doctors' book and set to work to organize themselves for the defence of their country."

The italics are ours. While we may say that it is no more than we expected, this high praise of the C.A.M.C., it gives us the greatest pleasure to call our reader's attention to this branch of our militia. If we are to have an efficient militia, it is evident that the medical arm should be as near perfection as possible.

## The Book of the Month

By O. C. JAY

# SOMETHING WRONG WITH THE WORLD?

PROF. ALFRED RUSSELL WALLACE

In

## "Social Environment and Moral Progress"

Professor Wallace deserves an attentive hearing. An old man now, he has given his life to scientific investigation and research, and so has won the right to dictate terms and propound judgments. It will be readily recalled that Professor Wallace was the co-temporary of Darwin, and when the latter had published his findings and his conclusions he discovered that a young man thousands of miles away in the Southern Seas had, upon a like foundation, built a superstructure similar to his own. That young man was Alfred Russell Wallace, who has never faltered in his allegiance to that science which wooed and won him in the early days of the nineteenth century.

This latest volume of his compels our attention, because it deals with phases of human life which are of paramount importance nowadays. I am not sure that one can agree with everything he says, but one is perforce bound to investigate the statements which he makes. Some of these are wonderfully strong and far-reaching. But I fancy that it would be for the betterment of our Anglo-Saxon people and those who have been entrusted to our care, if our legislators and men in authority would pause long enough to ponder deeply these problems which he presents. His solution may not be the best, but he has at any rate suggested a way out.

I.

He first of all presents the statement that early civilizations were as far advanced and as intellectual as any we know today; in other words, that there has been a permanence of high intellect.

"When we remember that the Great Pyramid covers  $13\frac{1}{4}$  acres of ground, that it is truly square and on a truly horizontal base, that each side is accurately directed to a point of the compass, that

the angle of its slope is such that the area of each of the four triangular faces is equal to that of a square whose sides are equal to the height of the pyramid; and, further, that the slope of the long descending tunnel is precisely such as to point accurately to the pole star of the epoch at the lowest part of its circuit round the true pole; and, lastly, that all this could be done, as accurately as it has been done, by the system of subterranean tunnels and galleries that actually exists, while almost all the details of their construction are shown to be adapted for astronomical observations of the nature required, the conclusion becomes irresistible that they were designed and used for such observations, and that by no other means could the same amount of accuracy have been attained.

"I have given a rather full account of what the pyramid builders really did, because it forms a very important part of the argument I am developing as to the stationary condition of the human intellect during the historical period.

"The great majority of educated persons hold the opinion that our wonderful discoveries of art and science prove that we are really more intellectual and wiser than the men of past ages—that our mental faculties have increased in power. But this idea is totally unfounded. We are the inheritors of the accumulated knowledge of all the ages; and it is quite possible, and even probable, that the earliest steps taken in the accumulation of this vast mental treasury required even more thought and a higher intellectual power than any of those taken in our own era.

"We can perhaps best understand this by supposing any one of our great men of science to have been born and educated in one of the earliest of the civilizations. If Newton had been born in Egypt in the era of the Pyramid builders, when there were no such sciences as mathematics, perhaps even no decimal notation which makes arithmetic so easy to us, he could probably have done nothing more than they have actually done. In building up the sciences each of the early steps was the work of a genius. But now that there has been nearly a hundred centuries of discovery and specialization by thousands or even millions of workers, that by means of writing and of the printing press every discovery is quickly made known, and that ever larger and larger numbers devote their lives to study, the rule of

progress becomes quicker and quicker, till the total result is amazingly great. But that does not prove any superiority of the later over the earlier discoveries. There is, therefore, no proof of continuously increasing intellectual power."

I have quoted thus largely here because these words seem to lay the foundation upon which he builds his argument. Not only are we prone to look with disdain upon the achievements of past ages as compared with what we think are our own, but we, of British race, are still more prone to rate other nations and other races our inferiors in these modern days. And, too, within ourselves, class distinctions rule. Professor Wallace pleads for a spirit of universal brotherhood. So much for intellectual progress; moral progress fares little better.

"The general result of the facts and arguments now set forth in the merest outline leads us to conclude that there has been no definite advance of morality from age to age, and that even the lowest races, at each period, possessed the same intellectual and moral nature as the higher."

"It follows that no definite advance in morals can occur in any race *unless there is some selective or segregative agency at work.*"

"The reason of this is that heredity follows the law of 'recession to mediocrity.'" That is, that all groups of living things vary around an average or mean as regards each of their characters."

Which all means that in a family of great ability there appear those who have no special aptitude for any pursuit in life while in a family of mediocre ability, or of no ability at all in any special direction there appear those who become geniuses, proclaimed such by the whole world.

## II.

Having stated his fundamentals in these ways, Prof. Wallace becomes more practical in his indictment of the nineteenth century in its treatment of industrial workers and the wretched environment provided for its children to grow in. Referring, of course, especially to the British Isles, he charges the health authorities (corporation and other Local Boards) with criminal negligence.

"Again and again, in all parts of the country, the health officers have duly reported, but their reports have been ignored. In some cases, where the health officer has been too persistent, he has been asked to resign, or has been discharged."

This praise of medical officers of health is pleasing, and it is none too strong. Many

a brave doctor, not only in England, but in Canada, had deliberately fought powerful interests in his devotion to public health, knowing that his position and his living were at stake. In London, out of a total of 1,019,646 tenements, 672,030, or considerably more than half, have from one to four rooms; while there are about 150,000 tenements of only *one room*, in which are living 313,298 persons, or about two and a quarter persons in each room on the average. Oh, yes! I know you shudder when you read such a statement, but have you ever investigated Montreal, or Toronto, or Winnipeg? Have you ever visited the stranger within our gates, where he lives? How can we expect a splendid citizenship from such an environment.

"Such facts exist all over the kingdom. They have been talked about and deplored for the last half century at least. Who has murdered the 100,000 children who die annually before they are one year old? Who has robbed the millions that just survive of all that makes childhood happy—pure food, fresh air, play, rest, sleep and proper nurture and teaching? Again, we must answer, our Parliament, which occupies itself with anything rather than the immediate saving of human life and abolishing widespread human misery, the whole of which is remediable. Wealth has been deliberately preferred to human life and happiness."

I shall pass over those chapters which refer to the prevalence of adulteration, bribery and gambling, although these are claiming the best attention of thoughtful men and women everywhere. I shall also leave that most interesting portion which refers to our administration of "Justice" as being immoral, although I should like in a word to remind you that there is always a cry for "law reform" in the air, because of existing burdens, and pass to what Prof. Wallace terms increasing moral degradation. Some people would tell us that the world is better than it ever was. I shall quote one table, referring naturally to the British Isles:

Average of Years.	Deaths by Suicide per Million Living.
1866-1870.....	66.4
1871-1875.....	66.0
1876-1880.....	73.6
1881-1885.....	73.8
1886-1890.....	19.4
1891-1895.....	88.6
1896-1900.....	89.2
1901-1905.....	100.6
1906-1910.....	102.2



"Such a table as this, occurring in a country which boasts of its enormous wealth, of its ever-increasing commercial prosperity, of its marvelous advance in science and the arts, and command of natural forces, should, surely, give us pause, and force upon us the conviction that there is something radically wrong in a social system which brings about such terrible evils."

Upon the vast subject of prostitution he is eminently fair, for he says:

"I can find no statistics to show whether it has increased or decreased during the last century. But as the conditions have all been favorable for it, I have little doubt that it has increased in proportion to population. Such conditions are, the enormous growth of great cities; an increasing number of unmarried and wealthy young men; with an enormous number of girls and young women, whose wages are insufficient to provide them with the rational enjoyments of life."

"The proceedings of the divorce courts show other aspects of the result of wealth and leisure; while a friend who had been a good deal in London society assured me that both in country houses and in London various kinds of orgies were occasionally to be met with, which could hardly have been surpassed in the Rome of the most dissolute Emperors."

One can scarcely believe that such statements are true, and yet our daily press, only too vividly, portrays a style of living which stamps truth upon every syllable of the great scientist.

### III.

And now we come to the field in which Prof. Wallace loves to roam, where he has been roaming for a half century. I refer to natural selection in the animal world.

"By far the larger part of the criticisms of Darwinism by popular writers are due to their continually forgetting these two great natural facts; enormous *variability* about a *mean value* of every part and organ; and such ever-present powers of multiplication that, even in the case of vertebrate animals, of those born every year only a small proportion—one-tenth to one-hundredth or thereabouts—live over the second year. If they all lived their numbers would go on continually increasing, which, we know, is not the case. Hence arises what has been termed 'the struggle for existence,' resulting in 'the survival of the fittest.' It is a mere truism that the *fittest survive*."

Darwin came to use the term "Natural Selection" because it was suggested to him by the way plants and animals breed large quantities and always preserve or "select" the best in each generation to be the parents of the next.

"This method, carried on by hundreds of farmers, gardeners, dog, horse or poultry breeders, and

especially by pigeon fanciers, has resulted in all those useful, beautiful and even wonderful varieties of fruits, vegetables and flowers, dray horses and hunters, greyhounds, spaniels and bull-dogs, cows which give large quantities of the richest milk, and sheep with the greatest quantity and finest quality of wool. All these were produced gradually for the special purposes of mankind."

People have objected to the Darwinian theories because they do not explain the origin, the beginning. There is always that "missing link." Prof. Wallace very finely expresses one of the greatest truths in the universe when he says in answer to these objectors:

"The *beginnings* of things can never be known; and, as Darwin well said, it is foolish to waste time in speculation about them."

If we would only realize that there are mysteries, hidden from us for a purpose, which no man will ever unravel this side of the grave, and let it go at that, how much brain misery and futile argument we should save.

But I see that my space for this month is exhausted, and as there are many interesting passages in the concluding third of this book which apply what Prof. Wallace believes to be the remedy for a very bad state of affairs, I shall pursue this in the next issue.

"The conclusion reached in the earlier portion of this volume, that the higher intellectual and moral nature of man has been approximately stationary during the whole period of human history, and that the cause of the phenomenon has been the absence of any selective agency adequate to increase it, renders it necessary to give some further explanation as to the probable or possible origin of this higher nature, and also of that admirable human body, which also appears to have reached a condition of permanent stability."

(To be Continued.)

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After the above was in type, the news flashed around the globe that Professor Alfred Russell Wallace passed away on November 7th in his ninety-first year. This but enlarges our interest in this last published work of his which was presented to the public on his ninetieth birthday.

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## Book Reviews

*A Good Book is the Previous Life-Blood of a  
Master Spirit Embalmed and Treasured.—Milton.*

Were I to pray for a taste which should stand me in stead under every variety of circumstances, and be a source of happiness and cheerfulness to me during life and a shield against its ills, however things go amiss, and the world frown upon me, it would be a taste for reading. Give a man this taste, and the means of gratifying it, and you can hardly fail of making him a happy man, unless, indeed, you put into his hands a most perverse selection of books. You place him in contact with the best society in every period of history, with the wisest, the wittiest, the tenderest, the bravest, and the purest characters who have adorned humanity. You make him a denizen of all nations, a contemporary of all ages.—*Sir J. Herschell.*

### The Difficulties and Emergencies of Obstetric Practice.

This is a companion volume to "Gynaecological Surgery," by the same authors, Drs. Berkeley and Bonney. With these two volumes in his possession, not only on his book-shelves, but in his brain, any medical practitioner will be a specialist along these lines. Those who know these two authors, personally, need not be told that they have been indefatigable in their labors, both at Middlesex Hospital and at Chelsea. They have been working together a number of years and have at last published a work which is a distinct contribution to Obstetrics. In no branch of medicine and surgery is it more necessary for the attendant to have a working knowledge of the difficulties and emergencies which he may meet at a moment's notice. The life of the patient depends upon his readiness to act correctly, as does also that of the new born babe. Many a man has been unprepared. The authors have presented us with all those difficulties which are to be met and have given very clear

and sufficient directions as to the methods to be employed. The illustrations, of which there are 287, are greater in number than are usually found in a book of this class. There is no better book, on this subject on the market to-day.

**THE DIFFICULTIES AND EMERGEN-  
CIES OF OBSTETRIC PRACTICE—**  
*By Comyns Berkeley, M.A., M.D., B.C. Cantab., F.R.C.P. ( Lond. ), M.R.C.S. (Eng.), Obstetric and Gynaecological Surgeon to the Middlesex Hospital; Surgeon to In-Patients, Chelsea Hospital for Women; Senior Obstetric Surgeon City of London Lying-in-Hospital; Lecturer on Obstetrics and Gynaecology Middlesex Hospital Medical School, and Victor Bonney, M.S., M.D., B.Sc., Lond., F.R.C.S. (Eng.), M.R.C.P. (Lond.), Assistant Obstetric and Gynaecological Surgeon to the Middlesex Hospital; Lecturer on Practical Obstetrics Middlesex Hospital Medical School, Surgeon to the Chelsea Hospital for Women; late Hunterian Professor Royal College of Surgeons of England—800 pages—287 Illustrations—The Macmillan Company of Canada, Ltd., Toronto—1913.*

### Practical Bacteriology, Blood Work and Animal Parasitology.

This is a practical volume, whose very outside appearance bespeaks the value it will prove to the laboratory workers in these three branches. It is of convenient size and tastily bound. It is divided into four parts, I., Bacteriology; II., Study of the Blood; III., Animal Parasitology; IV., Clinical Bacteriology and Animal Parasitology of the various Body Fluids and Organs. Besides there is an Appendix describing the preparation of tissues in microscopic sections and the chemical examination of various excreta, such as urine

and faeces and also gastric contents. The appendix closes with a chapter on Disinfectants and Insecticides. From this it can readily be seen that a work like this ought to have a place on the laboratory table for constant use. This is what is intended, for scattered throughout the book are many blank pages for notes to be entered, while the material is fresh in the mind. It will be only necessary to say that the pages are crammed with information and practical suggestion. The illustrations are numerous, well gotten up and extremely helpful.

**PRACTICAL BACTERIOLOGY, BLOOD WORK and ANIMAL PARASITOLOGY**—Including Bacteriological Keys, Zoological Tables and Explanatory Clinical Notes—By E. R. Stitt, A.B., Ph.G., M.D., Medical Inspector U. S. Navy; Head of Department of Tropical Medicine U. S. Naval Medical School; Professor of Tropical Medicine, Georgetown University; Lecturer on Tropical Medicine, Jefferson Medical College—Third Edition—Revised and Enlarged—With 4 Plates and 106 other Illustrations, contains 573 Figures—P. Blake-ton's Son and Co.—1012 Walnut St., Philadelphia.

### Rational Diet.

In our August issue we published a review of this splendid volume from the pen of an eminent Canadian authority. We are now reminded by the publishers that the price of the volume was printed \$.50 net, instead of \$2.50, and that they have been put to considerable annoyance by receiving from numbers of our readers requests for this book, with 50 cents enclosed. Needless to say, we are sorry that the printer and proofreader were guilty of making such a gross error, although on page 475 of the same issue the price was quoted correctly. We admit that we have a little joy mixed with our sorrow, for we are made still more to realize how splendid a medium our Journal is and how many take advantage of our "Book Reviews" to place orders with the publishers. We can heartily commend "Rational Diet." We know that it is well worth the \$2.50 quoted, and we can only say that what has happened in this connection once will not occur again.

**HEALTH AND LONGEVITY THROUGH RATIONAL DIET**—By Dr. Arnold Lorand: Physician to the Baths, Carlsbad, Austria—416 Pages—F. A. Davis Co., Philadelphia, Pa.—Price \$2.50 net.

### Books Received.

The following books have been received, and the courtesy of the publishers in sending them is hereby acknowledged. Reviews will be made of these volumes from time to time.

**THE NEWBURGH SURVEY**—Reports of Limited Investigations of Social Conditions in Newburgh, N.Y.—By the Department of Surveys and Exhibits, Russell Sage Foundation—Zenas L. Potter, Director Field Work.

**BEYOND THE ATOM**—By John Cox, M.A., Sometime Fellow of Trinity College, Cambridge, Formerly Professor of Physics in McGill University—Cambridge: at the University Press—New York: G. P. Putnam's Sons—1913.

**STATISTICAL READY RECKONER**—By Gerard C. Taylor, M.A., M.D., Cantab., D.P.H.; County Medical Officer of Health of Berkshire—Bradley and Son, Ltd., Publishers, Reading—12s. 6d. net.

**THE POETICAL WORKS OF WILLIAM HENRY DRUMMOND, M.D.**—With an Introduction by Louis Frechette, and an Appreciation by Neil Munro—G. P. Putnam's Sons—New York and London.

**THE MEDICAL INSPECTION OF SCHOOL CHILDREN**—A Series of Lectures Delivered at the West London Post-Graduate College—By Arthur Saunders, M.A., M.B., Oxon., M.R.C.P., D.P.H.; P. S. Abraham, M.A., M.D., F.R.C.S.I.; Kenneth Scott, M.D., F.R.C.S. Ed.; H. J. Davis, M.A., M.B., Cantab., M.R.C. P.; H. Lloyd Williams, M.R.C.S., L.D.S., London; "The Medical Officer"—36-38 Whitefriars Street, E.C.—Price, One Shilling net.

## Meetings and Reports

# THE CANADIAN PUBLIC HEALTH ASSOCIATION THIRD ANNUAL CONGRESS

REGINA, SASK., SEPT. 18th, 19th and 20th.

The Third Annual Congress of the Canadian Public Health Association, with Dr. John W. S. McCullough as President, was in every sense a decided success. Not only was the response throughout Canada so energetic as to bring from East and West a very large number of delegates, but the local interest was intense. The Saskatchewan Government and the City of Regina were indefatigable in their endeavors to make the Congress feel at home and for the time being a part of themselves. At some of the general sessions upwards of 2,000 people were in attendance, and as may be seen by the extract which appears below, the social functions attracted the very flower of Saskatchewan. Nothing was too good for the delegates, and all will cherish exceedingly pleasant memories of the days spent in Regina. The hours devoted to work were indeed strenuous, eight sections meeting simultaneously in Regina College. Here were delivered a great number of excellent papers upon all phases of Public Health work and social problems, which will appear from time to time in our pages. The addresses at the general sessions attracted widespread attention throughout Canada, as excerpts from them were placed on the wires. It is not intended here to give a resume, bit by bit, of the work done, for this Congress was like a host of other conventions, where address follows address and discussion discussion, like well ordered machinery, but to give a general survey of the whole proceedings.

First of all, it will be well to present the report of the Executive Committee presented to the Congress.

To the President and Members of the

Canadian Public Health Association:

Gentlemen,—Your Executive Committee has the honor to report that the following matters have received their action since the last annual meeting, held in Toronto, on the 16th and 18th of September, 1913.

1. In accordance with the wishes of the Association, the following resolution, passed at the last annual meeting, was presented to the Honorable the Prime Minister of Canada, who stated in reply that the same would receive his careful consideration.

"That in the opinion of the Canadian Public Health Association, it is a matter of great importance that the Dominion Government be urged to take steps to create a Department of Public Health, in order that all Federal branches dealing with health work may be co-ordinated under one administration."

2. The resolution on the "Pollution of Water Supplies," moved Mr. T. Aird Murray, C.E., and referred to the Committee from the last annual meeting was dealt with as follows:

A committee, under the chairmanship of Dr. C. A. Hodgetts, composed of members of the Executive Committee and the following gentlemen, Dr. Hastings, Dr. Seymour, Dr. Naismith and Mr. T. Aird Murray, C.E., was authorized to prepare a memorial on the subject and to present the same to the Federal authorities. Owing to the absence of the chairman, who is at present studying this important question in Europe for the Conservation Commission, the preparation of this memorial has been held in abeyance.

3. An illuminated and framed resolution of thanks to the retiring president and officers, as voted at the annual meeting, was presented to Dr. Hodgetts by the chairman of your committee in the name of the Association on the 16th November last.

4. With regard to the status of the Public Health Journal in connection with our Association, the following action was taken at a meeting held in Toronto, on the 30th May last.

"Resolved, that the Public Health Journal continue as the official organ of the Association, as it has been in the past. This action is taken to

make clear to all concerned that this Journal and no other occupies this official position."

Respectfully submitted,

LORNE DRUM,

Secretary Executive Committee.

Head Office of the Canadian Public Health Association, Ottawa, Ont.

31st August, 1913.

An interesting and timely letter was presented to the Congress from the Board of Health of the City of Toronto.

Major Lorne Drum,

Sec. Canadian Public Health Association, Regina, Sask.:

Dear Sir,—As you are doubtless aware, the question of dealing with the feeble-minded and mentally defective of every municipality is becoming a very necessary and important one, and with the increasing yearly influx of immigrants to this country, the number of this unfortunate class is likely to be very materially augmented.

Our Local Board of Health are unanimously of the opinion that valuable assistance could be rendered by the immigration authorities so increasing their staff as to enable them to make a more thorough examination of all parties entering the country. To that end I have been instructed by our Local Board of Health to ask the Canadian Public Health Association, when assembled at Regina, to take this matter into their serious consideration, with the hope that your organization will take concerted action thereon and memorialize the Federal Government as to the necessity of prompt action being taken along this line, in order that mental defectives or diseased persons may not be admitted to this country.

Again soliciting your consideration and co-operation in this matter, I remain,

Your obedient servant,

(Signed) W. A. LITTLEJOHN,

City Clerk and Secretary

Local Board of Health.

It seems fitting just here to acknowledge the indebtedness of the Association to the press of Regina and to present from two of the daily papers their words of welcome. They show clearly the place which the Canadian Public Health Association holds in the hearts of Canadians when its work and aims are thoroughly understood. The Leader had this to say:

The Capital City of Saskatchewan throws its gates wide open in welcome to the delegates who will gather here to-day from every part of the Dominion for the Canadian Public Health Congress. The gathering will be one of the first importance both by virtue of the distinction of many of the specialists who will take part in its deliberations and also because of the vital interest to the community of the questions to the consideration of which so much knowledge and ability of the highest order will be devoted.

No one who has given even the most superficial attention to the progress of municipal administration during the last half century can fail to

have been impressed by that extraordinary and ever-increasing complexity which has been its most marked characteristic, and in no department is this more strikingly illustrated than in that which is concerned with the care of the public health. Fifty years ago this vital matter received but scant attention, but, with the advance of sanity, science and preventive medicine in recent years, it has rightly assumed a place of ever-increasing importance in the field of municipal government. That the health department of the modern city has more than justified its existence by the conservation of life through the prevention, detection and limitation of contagious diseases alone, no thoughtful person will deny.

Yet the progress which has been made in the care of the public health, remarkable though it has been, is but one step in the conquering march against disease which will be marked by victories scarcely dreamed of by those who have not given careful attention to the invaluable but unpretentious work of those who are concerned with the advancement of medical science.

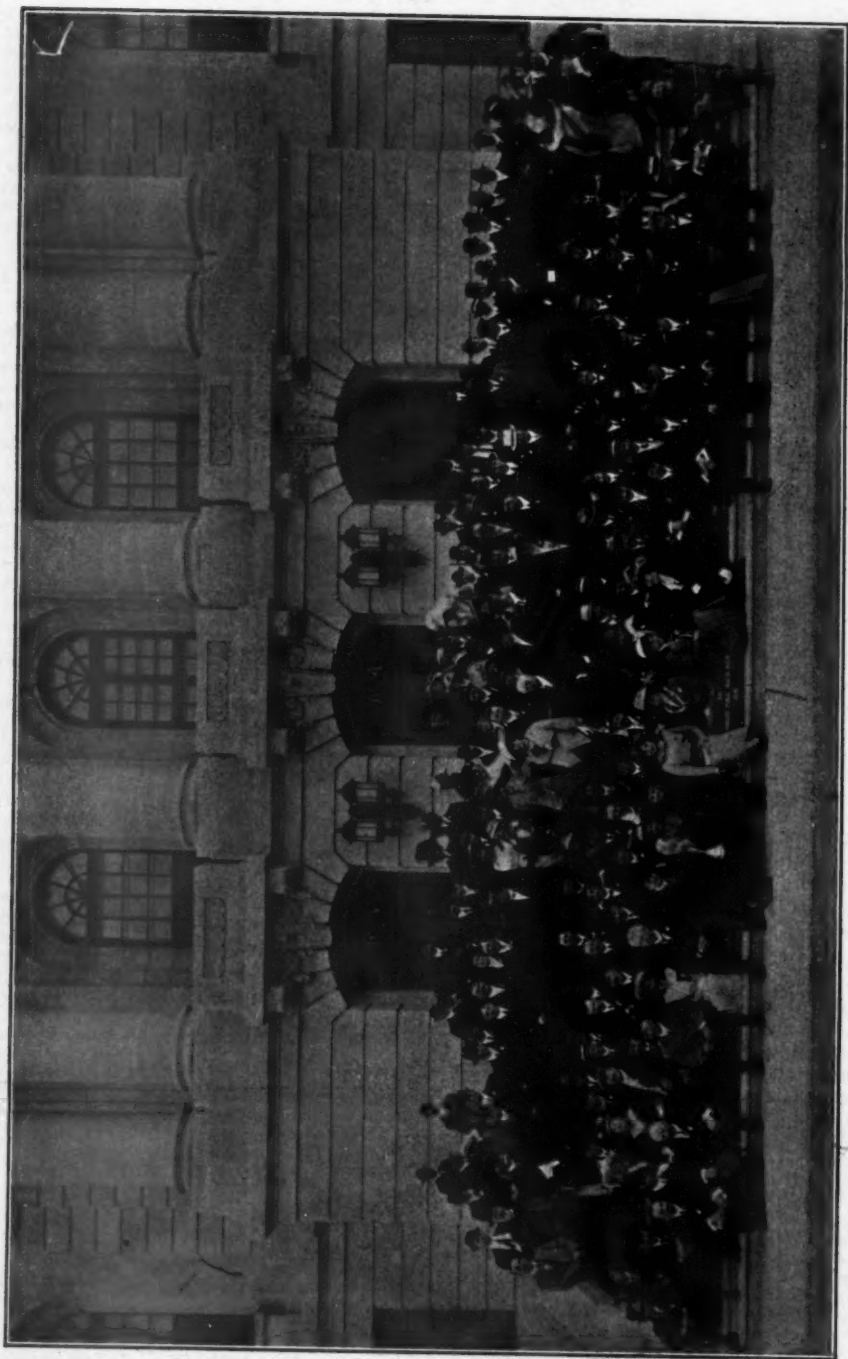
It may not be out of place at this time to urge upon the public generally that free co-operation with those who are engaged in this most important work, which alone can ensure the success which their efforts deserve. Prejudice and ignorance should not be allowed to hinder progress, and there is yet need that people should recognize more clearly that many health regulations which are irksome in the requirements which they impose upon the individual or group are necessary to the welfare of the community.

While it is not fitting that any community should boast of achievements in a field where so much remains to be done, it may not be out of place to remark that this province and city have claims upon the interest of the delegates which are in some respects unique. It is no empty boast to say that the Province of Saskatchewan enjoys special prominence by reason of the attention which it has given to public health. It may be remembered that recently "Conservation," the monthly publication issued by the Dominion Department of Conservation, accorded the highest praise to the Bureau of Public Health of this Province, especially commending the progress made in the scientific disposal of sewage and expressing the belief that the work "so efficiently conducted in Saskatchewan will be duplicated in the country at large in the near future." What is true of the province in this respect is no less true of its Capital City. There are few cities that have made more generous expenditures for the purpose of safeguarding public health, and the delegates to the Congress will see an illustration of this claim in the disposal works, unique in Western Canada, which commenced operations a few days ago.

The Standard generously voiced its sentiments in these words:

To-day the Standard extends the glad hand of western welcome to the delegates to the Canadian Health Congress, who opened their sessions in the model city of the plains. We use the word "model" because we believe that from the standpoint of health and cleanliness Regina is indeed





Some of the Delegates in front of the Parliament Buildings, Regina



a model city. Like all growing communities, we have had to face grave problems, particularly in the matter of making Regina a pure, clean and wholesome place to live in. In the working out of these problems the Standard has sometimes seen fit to differ with the authorities in regard to method, but we have no hesitation in saying that Regina has grappled successfully matters of public weal that would have daunted many older and more populous communities. It is true that the "slough of despair and despond" still exists in the east end by Armour's abattoir, despite the Standard's insistent and persistent demands that it be drained; but that is a detail. Taking our city on the whole we have reason to be proud of our health provisions and facilities.

Regina presents to the visitors to-day the best paved city in Western Canada. Streets admirably cared for and lawns beautifully kept present to the eye a sight pleasing in the extreme. But Regina is not only a city clean on the outside. Largely as a result of the efforts of the City Planning Association, back yards have been changed from harboring places for unkempt refuse piles into neat and attractive garden plots, and much has been done to make that portion of the home least seen by visitors a place of usefulness and beauty. Vacant lots have, through the efforts of the same organization, been made over into workmen's gardens, and this city may justly lay claim to leadership among her western rivals in that respect.

It is not often that the Standard devotes space to self-adulation, but we feel that the present presents an ideal opportunity for calling to the attention of our distinguished guests, as well as to our citizens at large, the fact that Regina is no mean city.

The Canadian Public Health Congress has done honor to Regina by holding in this city the first convention of its kind ever convened in the prairie west. Regina will do her best to make them welcome, and to-day we throw open the doors of the cleanest, neatest, squarest and healthiest city on the plains for the inspection of visitors who are experts and should appreciate what we have to offer.

As for the social functions, they were planned on an elaborate scale, and the only disappointment was the cancellation of the trip to the Sanatorium at Fort Qu'Appelle, owing to a railway accident. The Province had the following description of one of the most elaborate functions ever held within the borders of Saskatchewan, the *Conversazione* at the Parliament Buildings on Friday night:

Probably every resident of Regina and Saskatchewan in general is proud of the beautiful Parliament Buildings which adorn the capital city. Never did the magnificent structure look better or show up to better advantage than last evening, when it was thrown open for the pleasure of the visiting members of the Public Health Association and any residents of the city and pro-

vince who cared to attend. The decorating had been planned by wise heads, for no attempt had been made to supplement the stately beauty of the rotunda with its wonderful pillars and trimmings of green marble. The main stairway leading to the rotunda was banked with potted plants of trailing smilax and greenery, which enhanced the beauty of the scene. The centre of the rotunda was also banked with palms and potted plants, while around the gallery surrounding the rotunda plants were placed at intervals on the broad railing.

The formal presentation of the guests to their hosts—the representatives of the Province of Saskatchewan—took place in the Legislative Assembly. The scene was an impressive one, as the announcement of the guests and presentations were carried out in the most formal manner. The receiving line was composed of Acting Premier J. A. Calder, his Honor the Lieutenant-Governor, Hon. George Langley, and Hon. W. F. A. Turgeon. From half-past eight until a quarter past nine a steady stream of people passed in and out of the assembly chamber. The vastness of the building and the many corridors and rooms prepared for the accommodation of the guests made it impossible to realize the vast numbers of people who were present.

The programme for the evening had been planned with the same finish which characterized all other parts of the *conversazione*. There was no confusion at any time and everything was carried off as had been previously arranged. A special officer kept order in the arrivals and saw to the parking of the cars. In the dressing rooms maids were ready to serve any who wished assistance. The presentation of the guests was done during the exact time announced, and Miss McDowell's lecture was begun at a quarter past nine before a room that was packed to the door. The concert programme was begun with a solo by Mrs. Perring Taylor, whose voice is so well known and admired, while at the conclusion of the lecture Mrs. Belt sang "Valley of Laughter," which so exactly suits her beautiful voice.

A full orchestra in the gallery above the rotunda played a pleasing programme during the presentation. Later the musicians were stationed within one of the large rooms in the east wing, and a dance programme of twelve numbers was carried out, the dancers using the rooms on opposite sides of the corridor and also the corridor itself and the rotunda.

A rest room opposite the door by which those presented left the chamber was fitted up for the convenience of the ladies. Here Miss McDowell met a number of the ladies after her lecture. The lecture room during the latter part of the evening was converted into a smoking room, while card rooms were fitted up on opposite sides of the corridor at the west end. In addition to these special places, comfortable chairs and seats were placed in numerous alcoves and around the rotunda, so that everyone might be comfortable.

The members' handsome dining room and smoking room adjacent were converted into a supper room. The large dining room was cleared and

a long table arranged across the end, from which a buffet supper was served after ten o'clock. Quantities of snap dragons, asters and bright blossoms were used around this room. Even with the large number of guests confusion was avoided by keeping the supper running continuously after ten o'clock.

At no social function of recent date have so many beautiful gowns been seen. The setting which the lofty rotunda and stately rooms gave these lovely frocks made the affair one of unusual beauty.

At the closing general session, the following officers were elected for 1913-14:

President—Dr. Maurice M. Seymour, Regina.

Vice-Presidents—Dr. J. D. Page, Quebec; Mr. T. Aird Murray, C.E., Regina; Dr. Duncan M. Anderson, Toronto; Prof. J. A. Amyot, Toronto; Dr. T. H. Whitelaw, Edmonton; Mr. P. B. Tustin, Winnipeg.

General Secretary—Major Lorne Drum, M.D., D.P.H., Ottawa.

Treasurer—Dr. Geo. D. Porter, Toronto.

Besides these, an Executive Council was named, which appears on page ii of this and every issue during the year.

Immediately on the adjournment of the general meeting, the new Executive Council met and appointed the following members to act with the President, General Secretary and Treasurer, to form the Executive Committee for the ensuing year:

C. J. O. Hastings, M.D., M.O.H. Toronto.

C. A. Hodgetts, M.D., D.P.H., Ottawa.

Duncan M. Anderson, M.D., Toronto.

At a meeting of the Executive Committee, held at Regina, 20th September, Dr. Adam Wright, chairman of the Provincial Board of Health of Ontario, was elected Honorary President of the Association for the ensuing year.

The Third Congress of the Canadian Public Health Association passed a number of important resolutions, which appeared in the October issue. It has passed into Canadian history. The Fourth Congress will meet in the Twin Cities of Port Arthur and Fort William in September, 1914. There is every indication that the growing interest in matters relating to public health will make the Fourth Congress eclipse all those preceding.

## ROYAL VICTORIA COLLEGE.

### McGill University—Session 1913-14.

A course of about twenty lectures and demonstrations on General Principles of Public Health will be given after Christmas; dates to be announced later; by T. A. Starkey, M.B. (Lond.), D.P.H. (Lond.), M.D.C.M. (McGill), M.R.C.S. (Eng.), Fellow of the Royal Sanitary Institute, Strathcona Professor of Hygiene, McGill University.

This course is intended to meet the needs of students, social workers, and others interested in the problems of sanitation and Public Health, and will include the study of the following subjects: Air and Ventilation, Water Supply, Housing, Refuse Disposal, Drainage, Food Supplies, Preventable Diseases, Vital Statistics, Administration. Fee for the course \$6.00. For those entering as workers engaged by some recognized society (e.g., the Victorian Order of Nurses, the Charity Organization Society) the fee will be \$4.00.

For information apply to the Secretary, Royal Victoria College, Sherbrooke Street West, Montreal.

### Federal Bureau of Public Health.

A general endorsement of the movement now under way for Legislative action to prevent the pollution of all navigable water supplies was given by the Provincial representatives who met in conference in Ottawa October 30th on the invitation of Hon. J. D. Hazen to discuss the question. As one step along this line the conference passed a resolution urging the creation of a Federal Department of Health.

The conference was called as a result of the evidence obtained last winter by the Special Committee of the Commons on the Pollution of Streams. It was deemed advisable to have the views of the Provinces on the question before anything of a definite character would be done, and in response to an invitation sent out by Mr. Hazen every Province in the Dominion was represented at a gathering in the Agriculture Committee rooms of the House of Commons this morning.

Mr. Hazen, who was elected chairman, reviewed the introduction of bills in the Senate and Commons by Senator Belecourt and Mr. G. H. Bradbury, and the work of the Committee on the Pollution of Streams.

Mr. Geo. H. Bradbury, M.P., chairman of the Commons Committee, outlined the evidence which it had taken. He was led to take action on this matter by the condition of affairs which had befallen Ottawa, where more than two thousand lives were lost as a result of a typhoid epidemic, which was a direct outcome of an impure water supply.

At the afternoon session a resolution, moved by Dr. E. P. Lachapelle, Montreal, and seconded by Dr. Seymour from Saskatchewan, was carried unanimously that: "Whereas in the past, questions affecting sanitation and public health to be dealt with concurrently by the Federal and Provincial authorities, amongst others the question of protecting water courses from pollution, have suffered from the non-existence of a Federal Department of Health, this conference considers that the creation of a Federal Department of Public Health might well receive the early attention of the Dominion Government, the conference believe that such a department would be of assistance in solving inter-Provincial problems as to the protection of public health."

Hon. Martin Burrell, Minister of Agriculture, said that the matter of a Department of health in the Dominion Government had been discussed at different times, but there were certain difficulties to be cleared up, and although the Government had moved slowly in the matter, that was perhaps better than acting without sufficient consideration. There was the fact, too, that the Provinces claim far-reaching powers in regard to public health under the British North America Act. Hon. Mr. Hazen said that the combined work of the International Waterways Commission, the Conservation Commission and the Special Committee should have good results in solving the problem of protecting waterways from pollution.

Mr. T. Aird Murray, Toronto, said that to aid municipalities in planning sewage disposal plants there was needed a Royal

Commission to gather data and lay down principles that should be followed owing to conditions in this country which in many ways were different from those in Europe. Some plants built here at considerable expense were failures. Mr. R. S. Lea, Montreal, thought a disproportionate emphasis was placed on purification of sewage as compared with purification of water supply. He would proceed with the latter first.

Dr. Chas. Hodgetts, medical adviser to the Conservation Commission, said there could be a simple Federal Act given into the hands of a central body to apply in conjunction with the Provincial bodies. "British municipalities have scrapped more in the way of sewage disposal plants than almost any other country has spent on them," he said, in supporting the idea of a central authority to give advice on the subject to municipalities. "The Government should have proper experts not only to pass or reject the plans submitted by the municipality, but also to make suggestions."

Dr. Pelletier, of the Quebec Board of Health, proposed that the conference should deal only with boundary streams, but after a short discussion this motion was withdrawn. Before the conference concluded Hon. Mr. Hazen said that the difficulties resulting from the pollution of streams were growing all the time, and the matter should be dealt with before the country becomes much larger, a lesson being learned from the pollution of streams in Europe and the United States.

He was satisfied the committee would be continued, and it could gather a mass of data from which conclusions could be drawn for the framing of legislation. The jurisdiction between the Provinces and the Dominion could be easily worked out, although it was essential that this should be done before legislation is passed.

Regarding the formation of the Federal Bureau of Public Health, the Canadian Public Health Association some years ago passed a strong resolution recommending its formation as a public necessity, and it is gratifying to know that the seed then planted is now beginning to show signs of bearing fruit.

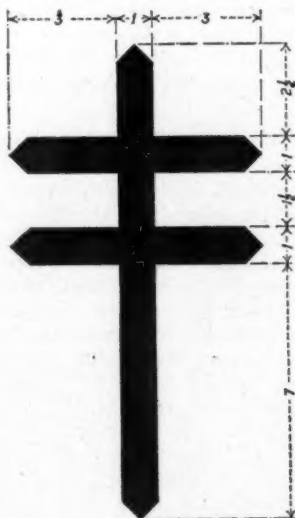
## Forecast and Review

### The Double Cross Standardized.

For more than ten years, anti-tuberculosis societies and institutions have been using the double red cross as a symbol or emblem which should indicate the fight against the disease in which they were engaged. It was first adopted for this purpose, as the symbol of the International Anti-Tuberculosis Association in Berlin, in October, 1902. Its proposer was Dr. G. Sersiron, of Paris. Dr. Sersiron took the shape of the cross from the common Croix de Lorraine and the cross of the Greek Catholic Church. To-day the emblem is being used by anti-tuberculosis workers in every part of the world. In 1906, the National Association for the Study and Prevention of Tuberculosis by a special resolution adopted this emblem for use in the United States, but did not specify the form or the proportions which should be used. The result of this action has been that almost all of the 2,500 agencies now engaged in anti-tuberculosis work in this country have been using the double red cross as their emblem, but in such a variety of shapes, forms, and proportions, that it would not be at all difficult to pick out over a hundred different kinds of crosses. One will find crosses with square ends, and pointed ends, long slender crosses, or short "squatty" ones. Here is a cross with the arms of the same length, while in another place is one with the arms of different lengths. It would seem that every possible permutation or combination of crosses that could be worked out has been adopted by one or the other of the many anti-tuberculosis agencies in this country.

Because of this chaos of emblems, the National Association at its 1912 meeting appointed a special committee consisting of Dr. Henry Barton Jacobs, of Baltimore, Chairman; Frank H. Mann, of New York, and James Minnick, of Chicago, to consider the design and dimensions of the double red cross as the emblem to be used

by all anti-tuberculosis associations in the United States. The committee presented its first report at the meeting of the National Association in May of this year. After careful study of the history and of the artistic merits of numerous designs, the committee reported in favor of a double cross, with equal cross-arms, the upper standard being shorter and the lower standard longer than the cross-arms, the end of both cross-arms and standards being pointed instead of square. The committee was influenced in its decision by the following reasons: (1) Because the design selected is furthest removed from any design having a religious significance; (2) because it is furthest removed from the well-known emblem used by the American National Red Cross; and (3) because its widespread



The double cross showing the true proportions. All the angles in the points are of 45 degrees. The width of the cross is the unit of measurement.



use in this country by many anti-tuberculosis associations over a long period of years has associated it in the public mind with the tuberculosis movement.

In its first report, the committee did not recommend any definite proportions, but it was empowered to work these out and later to submit the detailed specifications to all anti-tuberculosis agencies. The committee's final choice of design is shown in the accompanying illustrations. The width of the legs or arms (they are all of the same width) is taken as the standard unit. It will be noted from the illustration that the length of the lower leg below the cross-arms is 7 units; the arms are 3 units on either side; the point above the arms is  $2\frac{1}{2}$  units; and the distance between the arms is  $1\frac{1}{2}$  units. As the width of the cross remains the constant, standard unit, these measurements hold good for crosses of any size.

#### Conservation of Human Life.

It has been estimated that the economic equivalent of the needless loss of human life from preventable diseases will approximate \$1,500,000,000 per annum, using as a basis \$1,700 as the economic equivalent of each individual life. This equivalent is, it is believed, exceedingly low. Great sums have been amassed by different nations in carrying on warfare, and every victory won is hailed with the greatest delight by the natives of the victorious country. The cost of such victories is a feature which is seldom given any consideration. However, it is to be feared that this cost will almost invariably be much greater than the benefits which could possibly be derived from a martial conquest. As an example, it has been estimated that the cost to the victor of killing a man in modern warfare is some \$15,000. The expense to England of killing its enemies in the Boer War amounted to over \$40,000 for each man killed.

However, the public at large hears and knows very little of the expense element involved in modern warfare, and even should the public as a whole fully realize the extent of the expenditures involved, it is doubtful whether a single protest would be raised against such expenditures when the question arose of protecting their lives and property or the integrity of the nation; but would give materially not only

of their substance but their lives to defeat their enemies.

A greater warfare than any ever undertaken with powder and ball is being waged all over our entire United States, and great victories have been won—in the majority of instances with practically no press comment, and absolutely no enthusiasm upon the part of the lay public. If 300,000 men should be killed in battle against a foreign foe, the entire country would be up in arms immediately. Although this same number is needlessly done to death each year by preventable diseases, the public takes no cognizance of the fact and goes smilingly on its way. Even when the facts are made clear and assistance is asked for the successful continuance of the warfare against this most insidious of human foes, in many instances strong opposition is encountered toward the appropriation of the necessary sinews of war.

England was put to an expense of \$40,000 for every Boer struck down. The American Government transformed the Isthmus of Panama from a disease-ridden abode of pestilence to one of the most healthful and sanitary localities, at a total cost of \$2.43 per capita of inhabitants. The cost of carrying on the warfare against the hookworm in the South to date, has amounted to some 77 cents per capita of the inhabitants in the affected districts. Is this warfare profitable? Is the economic saving of human life worth while? We saved some 16,400 lives of the workers in Panama for the same amount of money that England expended in destroying one life in South Africa. Taking \$1,700 as the economic equivalent of a single life, the saving to the United States amounted to the great sum of nearly \$28,000,000. Is this saving worth while?

Three hundred thousand lives—the annual toll to the armies of preventable diseases—composed of legions of tuberculosis, pneumonia, typhoid, accidents, etc. Shall this slaughter continue? The decision is in the hands of the American public. A strong defence is need. Who will furnish the sinews of war—a few private but public-spirited individuals, whose efforts at the best must necessarily be limited; or our citizens as a whole, standing shoulder to shoulder in the fight?—*Bulletin, Ohio State Board of Health.*



### How Consumption is Spread.

Medical officers continue to devote a large space of their reports to tubercular disease, and seek to impress their councils with the importance of striving to stamp it out or take such preventive measures as shall prevent its evil effects spreading. Dr. A. B. McMaster, of Crewe, draws attention to the need for complete isolation of infected persons in the homes. We know that many people are averse to their children being taken away, yet they are unable to separate them from the other members of the family because of insufficient room. When an infected child sleeps in the same bed as a healthy one, and especially when no steps are taken to secure proper ventilation, it is only to be expected that the contagion will spread. If the ventilation is good there may be escape, but, as Dr. McMaster states, the "question of open windows in the home where pulmonary tuberculosis exists is a vital one in the interests of both patients and relatives, and the extent to which the practice was discovered is a source of satisfaction. Further, it is an indication that the correct method of dealing with the disease in the home is more generally understood than formerly. In this connection I would like to point out that to make it physically possible to sleep with open windows in cold winter weather, thought must be given to the quantity of clothing on the bed. Efficient open air treatment is only practicable when plenty of extra bedclothes are used. The lack of forethought in this direction is a frequent cause of the patient's alleged inability to sleep with open windows." These words will be widely endorsed and should be noted by Health Insurance Companies. In giving assistance the provision of sufficient and suitable bedclothes is worthy of their serious consideration—Sanitary Record.

### FAKE CONSUMPTION CURES

#### MAKE MILLIONS OF PROFIT.

**Over 500 Fraudulent Remedies Cheat People Out of \$15,000,000 Annually.**

Within the last five years, no less than 500 fraudulent "cures" for consumption have been tried upon thousands of victims in the United States, and the exploiters of these nostrums have reaped a clear profit

of not less than \$50,000,000. This is an estimate made by the National Association for the Study and Prevention of Tuberculosis in a bulletin issued to-day.

The National Association estimates that not less than \$20,000,000 is invested in the business of manufacturing and exploiting fake cures for tuberculosis, and that the annual income from these concerns and individuals is \$15,000,000. About one-third of this amount is spent for advertising, leaving a profit of \$10,000,000 a year, which is "blood money" taken from ignorant consumptives.

Three kinds of consumption cure frauds are distinguished by the Association, the first being the "institute" fraud, where a pseudo-hospital or dispensary is established and the wily "doctor" or "professor" administers "treatments" at so much per head. These concerns also carry on a mail order business with great profit. The second group of cures contains over a hundred different kinds of drugs and "patent" devices, any of which may be purchased at a drug store. Usually the consumptive is charged from \$1.00 to \$5.00 for these and the institute "cures," when he could make them up himself in exactly the same form for from one to five cents.

The third group of "cures" includes home-made remedies, which certain self-deluded individuals believe will cure tuberculosis. Among them are such things as onions, lemons, coal smoke, pig's blood, alcohol, dog oil, teas of various kinds, and a variety of diets, including goat's meat, clabbered milk and a score of other articles. These are not usually advertised for profit, but are usually given publicity in various ways.

The consumptive is the most hopeful individual in existence when the question of a cure is suggested. The National Association has stated that no specific cure for tuberculosis has been discovered, except the well-tried hygienic-dietetic method of fresh air, rest and good food.

**Before****taking  
Virol****After**

MAURICE PICKERING before taking Virol



MAURICE PICKERING after taking Virol

Mrs. Mary Pickering, of 32 Ninth Avenue, Heaton, Newcastle-on-Tyne, writes :

"My little boy Maurice was taken very ill with eczema and blood poisoning—his lungs also became affected. He wasted away terribly, and was worse than he appears in the first photo, which was taken after he had made some improvement on Virol. Our doctor feared Maurice could not recover. I tried him with Virol. The doctor said it was the best food we could give him. My boy kept it down, and gradually became stronger.

"Now, after taking Virol regularly—about five months—he is a strong, healthy and happy boy again; everyone in the neighborhood is amazed at his recovery."

The Doctor writes :

"I have pleasure in confirming the above statements of the wonderful recovery made by this child after the use of Virol. I quite feared his case was hopeless."

M.B., B.S.

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in Consumption, Anæmia, Gastric Troubles, Malnutrition, and Wasting Diseases

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**During the past year the following are some of the leading articles which have appeared in the Public Health Journal :—**

- The Sanitary Aspect of a Besieged Town, by G. Carleton Jones.  
Sewage Disposal by Oxidation Methods by Gilbert J. Fowler.  
The Dental Aspect of Medical Inspection of Schools, by W. H. Doherty.  
Schools as Factors in Preventing Infant Mortality, by Henry Coit.  
Saving Canadians from the Degeneracy Due to Industrialism in Cities of Older Civilization, by P. H. Bryce.  
The Carrier Question, by H. W. Hill.  
Trade Quackery in Medicine, by A. W. Wakefield.  
Diet in Its Relation to Disease, by H. B. Anderson.  
Heredity as a Cause of Mental Defectiveness, by J. P. Downey.  
The Social Evil, by James Pederson, M.D.  
How to Obtain Efficiency from Pressure Filters, by H. W. Cowan, C.E.  
The Effects of Immigration on the National Health, by W. W. Lee.  
Sewage Disposal in Rural Districts, by Ascoug Rodwell.  
Human Efficiency, by W. A. Evans.  
The First Regular Open Air School in Canada, by J. H. Holbrook, M.D.  
The Nursing Side of Medical Inspection of Schools, by Lina L. Rogers, R.N.  
Unemployment and the Public Health, by B. Seeborn Rowntree.  
The use of Typhoid Vaccine, by Geo. A. Gray, M.D.  
The Future of the Public Health Laboratory, by H. W. Hill, M. B., D.P.H.  
Administrative Control of Tuberculosis, by Herman M. Biggs.  
The Relation of Water Supply and Typhoid, by B. G. Michel.  
The Rural Health Officer's Relation to Pulmonary Consumption, by A. P. Reid.  
Municipal Control of Milk Supplies, by T. H. Whitelaw.  
Militia Sanitation a Civil Asset, by Lorne Drum.  
Dust in the House and on the Street, by Adam H. Wright.  
Threatened Outbreak of Typhoid Fever and Measures Taken to Avoid It, by R. E. Wodehouse.  
Sewage Disposal of Oxidation Methods, by John D. Watson.  
The Open Window, by J. F. Goodchild.  
Militia Sanitation, a Civil Asset, by Lorne Drum.  
The Hygiene of Building from an English Standpoint, by Percy L. Marks.  
The Prevention of Tuberculosis, by J. H. Elliott.  
The Scientific Management of Household Work and Wages, by Constance E. Hamilton.  
The Value of a Health Laboratory to a Municipality, by G. G. Nasmith.  
The International Hygiene Exhibition of Dresden, Germany, by J. F. Honsberger.  
The Harbor of Indifference, by Dr. Geo. D. Porter.  
Sanitary Surveys of Rivers, by J. R. Malek, C.E.  
The Relation of the Social Survey to the Public Health Authorities, by Franz Schneider, Jr.  
Leaves from an Inspector's Note Book, by H. D. Mathias, A.R.S.I.  
Charities and Corrections, by J. Edward Starr.  
The Land of Spotless Towns, by Florence Withrow, B.A.  
The Stranger Within our Gates.  
The Point of View in Medical Inspection of Schools, by W. E. Struthers, B.A., M.B.  
The Prevention of Tuberculosis in the Country, by H. G. Roberts, M.D.  
The Dentist as a Social Worker, by A. W. Thornton, D.D.S.  
The Vitality of Typhoid Bacilli in Water, by Joseph Race, F.I.C.  
Storm and Surface Water Drainage in Relation to Sewage Disposal, by R. R. Knight, C.E.  
The Sanitation of the Bivouac, by Lieut.-Col. D. B. Bentley, A.M.C.  
Municipal Meat Inspection, by Andrew R. E. Richmond.  
The Principles and Results of My Treatment of Tuberculosis, by Frederick Franz Friedman, Berlin, Germany.  
What the Daughters of the Empire Are Doing Towards the Prevention of Tuberculosis, by Mrs. Albert E. Gooderham, President Imperial Order Daughters of the Empire.  
First Report of the Juvenile Court, by Commissioner J. Edward Starr.  
Of What Value are Sanatoria as a Public Health Measure, by W. B. Kendall.  
Milk in Relation to Disease, by J. Basil Buxton, M.R.C.V.S.  
The Eradication of the Tuberculous Milk Cow, by P. Simpson, F.R.C.V.S.  
General Food Inspection, by Robt. Aude.  
The Common House Roach as a Carrier of Disease, by R. C. Longfellow, M.D.  
Heredity and Public Health, by A. P. Reid, M.D.  
The Purification of the Water of Swimming Baths, by Louis C. Parkes, Chairman.  
A Plan for the Betterment of the Economic Condition of Medicine, by E. Elliott Harris, M.D.  
On the Question of Food Poisoning, by Prof. Dr. Geo. Meyer, Munich.  
The Value of Playgrounds to the Community, by Jacob A. Riis, New York.  
School Clinics, by L. Haden Guest, M.R.C.S., L.R.C.P.  
Health Visiting in an American City, by Elisabeth Detwiler.  
The Relation of the Hospital for Mental Diseases to the Community, by E. H. Young, M.B.  
Eugenics, by A. P. Reid, M.D.  
A Constructive Programme for Housing Reform, by Mildred Chadsey.  
The Philosophy of Mastication, by Geo. H. Niles.  
Occupational Diseases, by H. B. Blakey, M.D.  
Disinfection and Disinfectants, by Franz Schneider, Jr.  
Plants for the Rock Garden, by Rachel R. Todd, M.D.  
Dry Closets, by James S. Dunn.  
Dust Prevention by the Use of Palliatives, by Arthur H. Blanchard.  
Foot and Mouth Diseases, by D. George Collins.  
My Personal Experience of Tuberculosis, by Marion Marshall.  
Some Sins Against Social and Sanitary Statutes, by A. P. Reid, M.D., Halifax, N.S.  
Public Health Legislation in the Province of Quebec, by John A. Hutchinson, M.D., Westmount, P.Q.  
Queries and Answers, by James Roberts, M.D., M.O.H., Hamilton, Ont.  
A Criticism of "Facts Against Vaccination," by J. Foster Palmer, M.R.C.S., L.R.C.P., London, Eng.  
The Use of Vital Statistics in the Public Health Service, by Geo. C. Whipple, Harvard University.  
Health Matters in Ontario, by Dr. Adam Wright.  
The Importance of Milk as a Food, by A. W. McPherson, M. O.H., Peterboro.  
Helping Children to Good Citizenship, by J. J. Kelso.  
Disposal of Domestic Sewage in Suburban and Rural Areas, by Robt. E. Wodehouse, M.D.  
The Care of the Teeth of School Children in Germany, by Prof. Dr. Dieck, Berlin.  
Memoranda of Sanatoria in Tuberculosis, with mostly German Data, by Wm. Seagrove Magill, M.D.  
The Examination of Sputum in Ontario, by C. D. Parfitt, M.D., Gravenhurst, Ont.  
Tuberculosis in Toronto, by Eunice H. Dyke.  
The Public Health Act of Ontario, by Dr. John W. S. McCullough.  
Trachoma, by H. F. Lechmere Taylor, M.D., Punjab.  
Medical Organization During Rear-guard Actions in Civilized Warfare, by Col. W. C. Beevor, C.M.G., R.A.M.C.  
Serum Therapy in Canada, by Sir James Grant, K.C.M.G., L.R.C.P. (Lond.).  
The Disposal of Garbage and Refuse in Towns, by W. R. Hall, M.D., M.O.H., Chatham, Ont.  
Does Vaccination Protect, by Jas. Roberts, M.D., M.O.H., Hamilton, Ont.  
The Scope of Sanitary Work in the Home, by Chas. A. Hodgkiss, M.D., D.P.H., Ottawa.  
How Can Cross Infection be Prevented in a Hospital for Communicable Diseases, by M. B. Whyte, B.A., M.B., Toronto.  
Sanitary Work Among the Foreign Population, by Lieut.-Col. C. N. Laurie, M.D., Port Arthur.  
Suppression Preferable to Segregation, by J. L. Beavers, Atlanta, Ga.  
What New Zealand Does to Promote the Health of the Women and Children, by Mrs. Massey.

**During the ensuing year the following will, with many others, be published:—**

- What Higher Sanitation Means to Canada, by Chas. A. Hodgetts, M.D., D.P.H., Medical Adviser to Commission of Conservation, Ottawa.
- The Influence of Immigration on Canadian Health and Character, by P. H. Bryce, M.D., Superintendent of Immigration, Ottawa.
- The Smoke Problem, by R. N. Blackburn, Wh. Sch., Chief Inspector of Steam Boilers for the Government of Saskatchewan.
- Municipal Food Inspection, by J. G. Rutherford, V.S., C.M.G., Superintendent of Animal Husbandry, C.P.R. Department of Natural Resources, Calgary.
- Veterinary Hygiene and Public Health, by C. H. Higgins, D.V.Sc., B.Sc., Chief Pathologist, Health of Animals Branch, Department of Agriculture, Ottawa.
- The Relation of the Health Officer to the Community, by M. R. Bow, M.D., Medical Health Officer, Regina.
- Diphtheria from the Viewpoints of the General Practitioner and Medical Health Officer, by A. W. Tanner, M.D., Moosomin, Sask.
- The Need for More Complete Organization in Public Health Work, by H. G. Pickard, M.D., Medical Officer of Health, Brandon, Man.
- Tuberculosis and Its Control, by C. S. Mahood, M.D., Medical Officer of Health, Calgary, Alta.
- Why Are Modern Infectious Diseases Mild? (a discussion of the reasons for the mild smallpox, mild scarlet fever, etc., of today, with an hypothesis believed to be new), by H. W. Hill, M.D., D.P.H., Director Institute of Public Health, London, Ont.
- The Handling of Night Soil, by B. M. Bayly, M.D., Medical Officer of Health, Moose Jaw, Sask.
- A Few Notes on Infantile Paralysis, by Arthur Wilson, M.D., Regina.
- Dental Caries in School Children and Dental Inspection, by W. D. Cowan, L.D.S., D.D.S., Regina.
- End Results in Backward Children, by W. E. Struthers, B.A., M.D., Toronto.
- School Grounds and Supervised Playgrounds, by G. R. Jackson, Supervisor of Playgrounds, Edmonton, Alta.
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- Heating and Ventilating Modern School Buildings, by S. S. Kennedy, Consulting Engineer, Winnipeg.
- School Nursing, by Miss Jean Browne, Regina Public Schools.
- The Conservancy of Military Camps Considered as a Model for Municipalities which have Suffered a Severe Disaster, by Major F. L. Vaux, A.D.M.S., M.D., No. 10, Winnipeg.
- The Training of Sanitary Officers for the Militia, by Major Lorne Drum, M.D., D.P.H., Ottawa.
- Laboratory Methods in the Field, by Harry Morell, Capt. C.A.M.C., Regina.
- The Tracing of a Food Inspector, by Andrew R. B. Richmond, V.S., B.V.Sc., Chief of Staff of Veterinary Inspectors, Toronto.
- The Municipal Food Inspector, by P. B. Tustin, A.R.S.I., Chief of Food and Dairy Division, Winnipeg.
- Tuberculosis in Dairy Cattle, by A. W. Tracey, D.V.Sc., Sherbrooke, Quebec.
- Serological Methods of Diagnosis, by E. A. Watson, V.S., Pathologist, Veterinary Research Laboratory, Dominion Government, Lethbridge, Alta.
- How Can the Average Old Barn be Most Cheaply Fitted Up for the Production of Clean Milk, by J. B. Hollingsworth, D.V.Sc., Ottawa.
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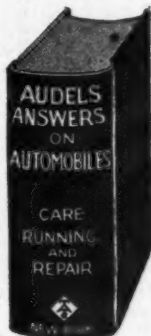
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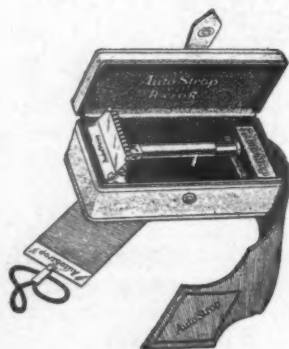
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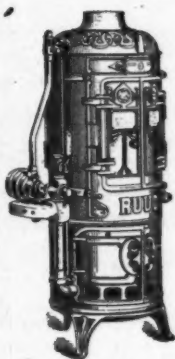
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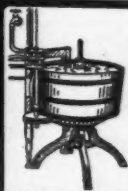
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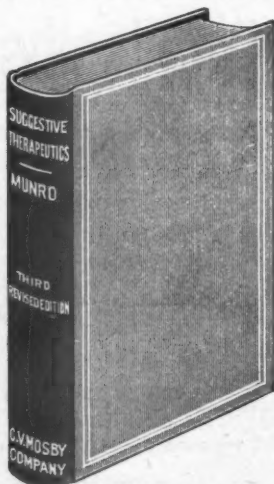
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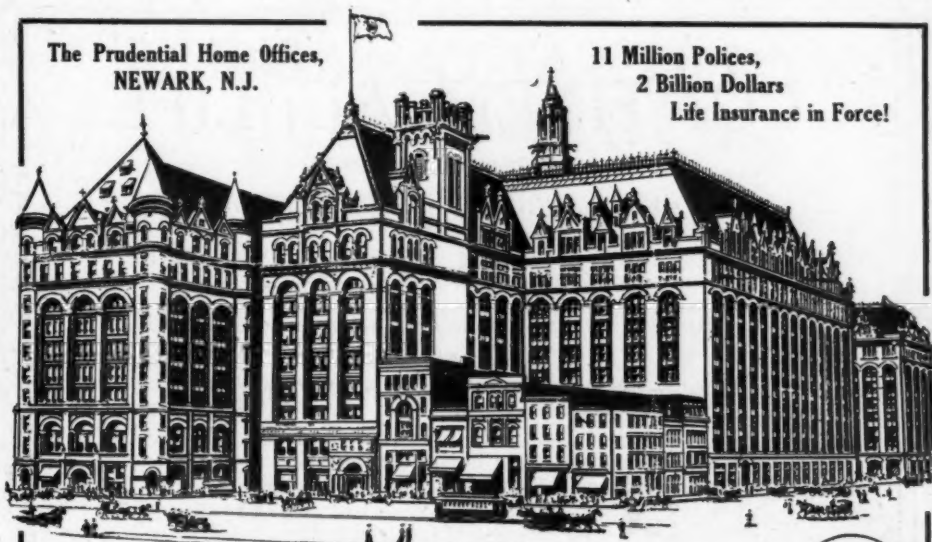
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Does away with licking stamps and with unsanitary sponges. Uses postage stamps in rolls, which any postoffice can supply. Also sticks, size tags, price tickets, inspector tags, bread labels, yardage markers, advertising pasters, etc. Simple, nothing to get out of order. Lasts a life time. Pays for itself in a month. You'll want it when you see it.

The A. S. HUSTWITT Co.

44 ADELAIDE W. TORONTO, ONT.

**"GOOD AS GOLD"**

ARE THE  
**POLICIES**

OF THE

**London Life**

**Insurance Company**

**Head Office: LONDON, CANADA**

Maturing 20-Year Endowment  
in the ordinary Branch show  
returns of \$140 per \$100 paid in  
premiums.

Full Insurance Protection in  
addition.

Ask for samples of Actual  
Results.

**THE CENTRAL CANADA  
LOAN AND SAVINGS CO.**

26 King St. East, Toronto.

Total Assets	\$9,782,000.
Capital (sub.)	\$2,500,000.
Capital (paid up)	\$1,750,000.
Reserve Fund	\$1,550,000.

Deposits received and debentures issued.

President

**Hon. Geo. A. Cox**

Managing Director

**E. R. Wood**

Assistant Manager

**G. A. Morrow**

**The National Life Assurance Co. of Canada**

**Head Office: National Life Chambers,  
Toronto and Adelaide Streets.**

**ELIAS ROGERS,  
ALBERT J. RALSTON,**

**President.  
Vice-President and Managing Director.**

Applications received for new assurances for the first three months of 1913 \$3,000,000.00, which is an average of a million dollars monthly.

The total volume of business in force on the first of April, 1913, over \$20,000,000.00.

So far as the Company's investments are concerned, we again report on April 1st, 1913, no arrears of interest or principal. No losses. This is a continuous record covering a period of over fourteen years.

**FOR AGENCIES APPLY DIRECT TO HEAD OFFICE.**

## Awake to Your Responsibilities

It is your duty to provide the best possible for your loved ones, and to see to it that the benefits which they enjoy during your lifetime are not curtailed to any great extent after your death. Be sure that your estate is such that it will provide cash when most needed without any sacrifice of securities owing to forced sale.

Life Insurance is the only remedy. Get a policy in

### THE Manufacturers Life Insurance Company

Head Office:—King and Yonge Streets  
TORONTO

## YOUR HEALTH IS GOOD

*to-day*, perhaps, but that is no guarantee that it will be good *to-morrow*.

You may be able to get life assurance *to-day*.

*To-morrow*—who knows?

Life Assurance creates *immediately*, for the benefit of your family in the event of your death, an estate that it would take long years to accomplish by other means.

**SUN LIFE ASSURANCE COMPANY OF CANADA**

# THE ROYAL BANK OF CANADA

Capital Authorized	- -	\$25,000,000
Capital Paid Up	- -	\$11,560,000
Reserve Funds	- - -	\$13,000,000
Total Assets	- - -	\$180,000,000

### HEAD OFFICE: MONTREAL.

H. S. HOLT, President

E. L. PEASE, Vice-President & General Manager

315 Branches in CANADA and NEWFOUNDLAND; 30 Branches in the WEST INDIES

LONDON, ENGLAND, Princes St., E.C.

NEW YORK, Cor. William and Cedar Sts.

SAVINGS DEPARTMENT AT ALL BRANCHES.



## Hearts of Oak

IT takes decades to bring the oak from the acorn; but the oak breasts any gale that blows.

For nearly a third of a century the North American Life has driven its roots deep into the bed-rock of financial stability.

To-day its financial position is impregnable.

It is heart-of-oak.

Every North American Life Policy is backed by Thirteen and One Quarter Million Dollars of Assets and by three decades of upright business practice.

The North American Life is a *safe* Company in which to insure.

### **North American Life Assurance Company**

"SOLID AS THE CONTINENT"

Head Office

-

Toronto, Canada

## A TYPICAL RESULT

On October 30th, 1913, Dr. J. J. Brownlee, of Detroit, wrote concerning his recently matured Endowment policy as follows:—"The outcome of my policy has been very satisfactory, for the dividends applied on my premiums from year to year have reduced the cost by over 25% and the policy, which was for \$1,000, has given me a cash return of \$379.14 over and above its cost, besides the insurance protection.

I wish your company the continued success it so well deserves."

In each of the past five years the surplus earnings have broken all previous records. In 1912 they were over \$1,530,000.

This accounts for the satisfactory dividends being paid policyholders of

**THE CANADA LIFE ASSURANCE CO.**



## Life's Four Seasons

**CHILDHOOD**—the Springtime of life—is the period of happy-go-lucky irresponsibility.

**YOUTH**—life's Summertime—is usually spent in acquiring an education and a trade or profession.

**MANHOOD**—is the third of life's fleeting seasons. It is the strenuous period during which the heavy burdens of life must be supported.

**OLD AGE**—the Winter of life—should be given to rest and the enjoyment of the comforts which the toils, struggles and sacrifices of earlier life have provided.

**LIFE INSURANCE** lightens the burdens of manhood and relieves the disabilities of old age. For instance, we are now issuing policies payable to the assured upon reaching a specified age, or to the beneficiary should the policyholder die in the interval. All other approved plans are issued.

**The Mutual Life Assurance Company of Canada**  
Waterloo - Ontario



# NORWICH UNION FIRE INSURANCE SOCIETY LIMITED

*Norwich, England*

INSURANCE AGAINST  
**FIRE, ACCIDENT & SICKNESS**  
**EMPLOYERS LIABILITY**  
**PLATE GLASS**

Agents wanted for the Accident Branch

**Head Office for Canada**  
12-14 Wellington Street East

**Norwich Union Building**  
TORONTO

## Canada Permanent Mortgage Corporation

TORONTO STREET - - TORONTO

Established 1855

President, W. G. Gooderham

First Vice-President, W. D. Matthews.

Second Vice-President, G. W. Monk.

Joint General Managers, - - -

R. S. Hudson, John Massey.

Superintendent of Branches and Secretary - - -

George H. Smith.

Paid-up Capital - - \$ 6,000,000.00

Reserve Fund (earned) - \$ 4,000,000.00

Investments - - - \$ 31,299,095.55

### DEPOSITS

The Corporation is a LEGAL DEPOSITORY FOR TRUST FUNDS. Every facility is afforded depositors. Deposits may be made and withdrawn by mail with perfect convenience. Deposits of one dollar and upwards are welcomed. Interest at THREE AND ONE-HALF PER CENT. per annum is credited and compounded twice a year.

## WHY EXPERIMENT

With inexperienced people when getting a  
Company incorporated and re-organized

When expert services of an old established firm are available?

### PROCURING CHARTERS OF INCORPORATION

Organizing Joint Stock Companies and placing their securities on the market is the work of Specialists trained in Business matters, who know the necessities and requirements from a strictly business point of view. You would not call in a carpenter to cut off a limb, because he could handle a saw. Why engage ANYONE but a Specialist in business and finance to

PUT YOUR COMPANY ORGANIZATION INTO SHAPE  
or to RE-ORGANIZE A BUNGLED CONCERN

WE KNOW HOW AND WHERE—CONSULT US

## INDUSTRIAL FINANCIAL CO.

(WILLIAM C. BULLOCK, Mgr.)

Consulting and Advisory Financiers

Experts in Company Organization (14 Years One Address)

18 TORONTO STREET

TORONTO, CANADA

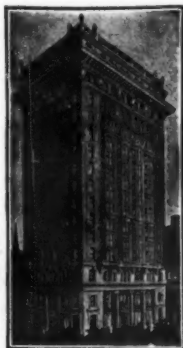
ALSO

LONDON, ENGLAND



## The Postal Life Insurance Company pays you the commissions that other companies pay their agents

ON entrance into the Company you get the agent's average first-year commission less the moderate advertising charge. Other companies give this commission-money to an agent: the POSTAL gives it to you.



Postal Life Building

That's for the *first year*: in subsequent years POSTAL policyholders receive the *Renewal Commissions* other companies pay their agents, namely  $7\frac{1}{2}\%$ , and they also receive an *Office-Expense Saving* of 2%, making up the

Annual Dividend of  **$9\frac{1}{2}\%$**  Guaranteed in the Policy

And after the first year the POSTAL pays contingent dividends *besides*—depending on earnings as in the case of other companies.

Such is the POSTAL way: it is open to you. Call at the Company's offices if convenient or *write now* and find out the exact sum it will pay you at your age—the *first year* and *every other*.

### POSTAL LIFE INSURANCE COMPANY

WM. R. MALONE, President  
35 NASSAU STREET, NEW YORK

#### STRONG POSTAL POINTS

**First:** *Old-line legal-reserve insurance*—not a fraternal or assessment.

**Second:** *Standard policy reserves*, now \$10,000,000. *Insurance in force* \$50,000,000.

**Third:** *Standard policy provisions*, approved by the State Insurance Department.

**Fourth:** Operates under *strict State requirements* and subject to the United States postal authorities.

**Fifth:** *High medical standards* in the selection of risks.

**Sixth:** *Policyholders' Health Bureau* provides one free medical examination each year, if desired.

#### See How Easy It Is

In writing simply say: "Mail me insurance-particulars for my age as per PUBLIC HEALTH JOURNAL"

Your letter be sure to give:

1. Your Full Name.
2. Your Occupation.
3. The Exact Date of your Birth.

No agent will be sent to visit you: the Postal Life employs no agents.

Assets:  
\$10,000,000

Insurance  
in force:  
\$50,000,000

## Duncan's Aldoform Tablets

These Tablets are composed of Formaldehyde in combination with sugar, etc., and suitably flavored, so that the pungent taste of the Formaldehyde is completely covered.

Aldoform Tablets (Duncan) are intended to be slowly dissolved in the mouth, thus allowing the valuable antiseptic powers of the Formaldehyde to have full therapeutical effect.

These Tablets are a powerful remedy for septic throats and any foul conditions of the mouth, such as occur in cases of fever, etc. They are extremely useful for juveniles and others to whom gargling is a difficulty. They quickly control bacterial growths and form a perfect antiferment for oral purposes.

Aldoform Tablets are absolutely devoid of all irritating properties and being non-toxic can be frequently used without producing ill effects.

Each Tablet contains 1 per cent. of Formaldehyde.

**Duncan, Flockhart & Co.**  
EDINBURGH and LONDON

MAY BE ORDERED THROUGH ALL RETAIL DRUGGISTS

SAMPLES ON REQUEST

R. L. GIBSON,

88 Wellington Street West, Toronto, Ontario

**5c.**

a Cake

**LIFEBUOY**  
**SOAP**

### In Treating the Skin

Lifebuoy is the perfect soap to use in connection with the treatment of all skin ailments.

The cocoanut and red palm oils are soothing and comforting to an irritated or sensitive skin.



All  
Grocers

But the greatest value of Lifebuoy lies in its purifying carbolic solution. This prevents the affection of adjacent parts and forms a constant safeguard.

**LIFEBUOY**  
HEALTH SOAP



